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PROVISIONS FOR INDIVIDUAL DIFFERENCES IN SECONDARY SCHOOLS OF THE UNITED STATES

One of the major projects of the National Survey of Secondary Education now in progress under the auspices of the United States Office of Education is an intensive investigation of the provisions made for individual differences. The large project has been included in the survey because of the essential significance of such provisions in a program of democratic education. As the first step in the project there was sent out in May of this year to the principals of all the secondary schools on the mailing lists of the Office of Education (more than twenty thousand in number) a check list of provisions for individual differences, with the request that respondents check once the "items in use" in their schools and twice those "which have proved unusually successful." Although the forms were sent out late in the school year, more than ten thousand—approximately half—were returned. The provisions listed in the form correspond with those in Table I, the names being those more often applied by the persons who report the use of the provisions. The frequency of double checks in the blanks returned is shown in the table. The form also requested principals to name any other provisions made

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which were not listed and to check these in the same way. Illustrative of items added which were also double-checked are supervised study, extra-curriculum activities, work-study-play or platoon plan,

TABLE I
RELATIVE IMPORTANCE OF VARIOUS PROVISIONS MADE FOR
INDIVIDUAL DIFFERENCES AS SHOWN BY NUMBER OF
DOUBLE CHECKS GIVEN EACH

Provision	Number of Double Checks
Problem method	418
Project curriculum	354
Credit for projects or studies carried outside of school hours	432
Variation in number of subjects a pupil may carry	795
Promotions more frequently than each semester	105
Advisory program for pupil guidance	541
Educational guidance through exploratory courses	61
Vocational guidance through exploratory courses	186
Special coaching of slow pupils	781
Special coaching to enable capable pupils to skip a grade or half-grade	114
Special classes for pupils who have failed	350
Opportunity rooms for slow pupils	172
Opportunity rooms for gifted pupils	69
Adjustment classes or rooms	55
Remedial classes or rooms	90
Restoration classes	24
Scientific study of problem cases	146
Psychological studies	70
Differentiated assignments to pupils in same class section	788
Long-unit assignments	349
Homogeneous or ability grouping	721
Winnetka technique	14
Individualized instruction	309
Contract plan	465
Laboratory plan of instruction	323
Dalton Plan	13
Modified Dalton Plan	52
Morrison Plan	174

group-study plan, practical-arts courses for over-age pupils, wide variety of courses, and correspondence study.

There should be considerable interest in the frequencies for the

different items. Among the highest are variation in the number of subjects a pupil may carry, special coaching of slow pupils, differentiated assignments to pupils in same class section, and homogeneous or ability grouping. Among the lowest are restoration classes, Winnetka technique (developed first for elementary grades), and the Dalton Plan. There is evidence in the study that the respondents were somewhat conservative in double-checking. For example, the Winnetka technique was given 105 single checks and the Dalton Plan 147 single checks.

All who have made excursions into the study of provisions for individual differences are aware of the large extent of the overlapping of these provisions. In preparing the check list submitted to the secondary-school principals, Roy O. Billett, who is in charge of the project, made no attempt to avoid overlapping. However, the complete project, in the carrying-out of which the distribution of the check list is only the first stage, will strive to ascertain exactly the practices represented by each provision and exactly how much the various provisions have in common. It is to be hoped that an important by-product of the investigation will be a clarification of terminology in a sadly confused field of education.

The entire project will be carried through three main stages. The second stage, work on which is now going forward, will be an intensive follow-up study of all provisions reported to be unusually successful. The source of information in this stage will be a battery of additional inquiry forms. Some of these forms are lengthy—inevitably so because of the need of obtaining an accurate picture of each of the provisions and of the difficulty of differentiating among them. A study of the returns from this battery of forms will lead to the selection of the schools that will be studied by actual visitation, by means of which will be gathered the third and final source of evidence to be used in the project.

These three steps, or stages (first, the check list; second, the intensive follow-up forms; third, visitation), are to be characteristic of the procedure of the survey as a whole.

The *School Review* will, from time to time, publish in this section reports of progress on other projects of the National Survey of Secondary Education.

CONTINUED INTEREST IN ADULT EDUCATION

Random reading of educational news items in the daily press and in other reports of current educational events affords repeated assurance that the interest in adult education which began a few years ago is no mere fad. It is not enough to say that consideration of the problem and activity in the field continue unabated; they are on the increase. Interest in the types of recipients ranges widely. At one extreme there is the effort to remove illiteracy; at the other, the attempt to induce the college graduate to extend his reading interests. An illustration of effort and progress in the task of removing illiteracy is provided in the following description of a recent pre-census "campaign" in Georgia, which was given to a reporter for the *United States Daily* by M. S. Robertson, director of the National Advisory Committee on Illiteracy. There were similar campaigns in other states.

There were organized 1,962 classes for this campaign. Enrolment totaled 36,595 adults, of whom 4,282 were white and 32,313 were colored. Four thousand two hundred and fifty-three additional persons were taught individually at home.

The total number of illiterates in Georgia in 1920 was estimated at 328,838, Dr. Robertson pointed out. Of these, 66,796 were native white, 861 were foreign-born white, and 261,115 were negroes. There were 131,003 illiterate males and 130,291 illiterate females of voting age, the report of the Georgia illiteracy commission notes.

The report calls attention to "very remarkable results" which have been achieved. There were 126 counties participating in the program of adult education under rather limited resources. Schoolrooms, churches, and homes were utilized for the training. Many of the teachers went from house to house to teach those unable to attend the regular classes.

Motor trucks were sent out into some sections and brought adults to the schools they otherwise could not reach. A total of forty thousand textbooks, writing pads, and pencils were distributed among the students. Newspapers published throughout the state an eight-lesson course for adult beginners.

Although a record of over forty thousand adults taught to read and write was compiled, there were several thousand additional persons taught whose names were not recorded. Information indicates that statistics for 1930 on the whole illiteracy question in Georgia will show a vast improvement.

In a later issue the same publication reported the announcement of the National Advisory Committee on Illiteracy that four states—Georgia, Alabama, South Carolina, and Louisiana—had reduced the

number of illiterates by nearly 250,000 during the recent campaign to teach adults to read and write. This is described as a "tremendous achievement" and "has given the committee great encouragement for its campaign following the census when every illiterate in the United States to the last one will be sought and given a chance to learn."

An illustration of efforts with college graduates was given in a report made by President Wriston, of Lawrence College, Appleton, Wisconsin, before the fifth annual meeting of the American Association for Adult Education, which was held some months ago in Chicago. The *Christian Science Monitor* quotes President Wriston as saying that offers to lend books (selected to expand the intellectual interests of college graduates) to 1,650 former students brought requests from 25 per cent of those approached.

Statistics supplied to the *United States Daily* by the Office of Education show that night-school classes continue to increase in popularity.

The total night-school enrolment for the entire nation reached 1,122,558 in 1928, and this was approximately a 25 per cent increase over that of 1926. . . .

City school systems have been especially active in encouraging adults to attend evening classes, it was explained. The highest proportion of enrolment is in cities. In 1928 nearly one million persons journeyed after a day's labor to public schools of one or another kind in 711 cities for instruction. . . .

In 1924 American cities had enrolled in night schools 782,634 adults; in 1926, a total of 797,997; and in 1928 the number had reached 993,985.

A subsequent issue of the *United States Daily* gives evidence concerning extension study that is also indicative of interest in further study by adults. L. R. Alderman, in charge of the service division of the Office of Education, received from eight hundred higher institutions answers to questions concerning extension courses offered. A total of 443 institutions indicated that they provide some extension service. The following is an excerpt from a summary of the investigation made by Mr. Alderman.

Work done by extension, either through correspondence study or in classes outside the institution, may be credited toward a degree in many colleges and universities. The amount of credit that can be earned through extension work varies among institutions. In general, institutions that offer service of this

nature permit one-fourth to one-half of the work necessary for a bachelor's degree to be earned by correspondence. There is a tendency to be more liberal in this regard toward class work taken outside the institution.

It was inevitable that the radio should have been taken into account in planning programs of adult education. In consequence, it also figures in the news dealing with adult education. In the early summer the announcement was made at the offices of the American Association for Adult Education of the organization of a National Advisory Council on Radio in Education. Announcement was made at the same time of the appointment of Levering Tyson, of Columbia University, as director. During the six months previous to the announcement Mr. Tyson had conducted a survey of the possibilities of the use of radio in adult education. The council is to consist of fifty representative citizens interested in education, and its work will be carried on through a series of local and regional councils and through an advisory and information service to be supplied to the chain, independent, and university and college broadcasting stations. Its object will be to emphasize and develop educational broadcasting, and to this end it will gather available material on the subject and will co-operate with universities and colleges, with public schools, with both chain and independent broadcasting agencies, with other educational organizations, and with civic and governmental bodies.

In view of the rapid development and dynamic possibilities of adult education it is unquestionably desirable that problems in the field be subjected to careful investigation. President Coffman, in an article entitled "Why They Study" in the June issue of the *Journal of Adult Education*, in which he cites evidence from a study of extension students at the University of Minnesota, indicates his belief that we are already moving "into the stage of inquiry and investigation." He writes:

We are rapidly passing out of the stage of speculation and discussion with regard to the adult-education movement into the stage of inquiry and investigation; but the movement itself does not wait on the scholar and the scientist—it develops apace. Thus far there has been, so it seems to me, no adequate or satisfactory interpretation of the forces or causes responsible for the development of the movement. Perhaps we are not yet ready to make such an interpretation. It would appear that at least three things are necessary to an understanding of the movement: first, a thoroughgoing survey and analysis of its

growth, its manifestations, its heterogeneous clientèle, scope of activities and general effectiveness; second, a number of intensive studies of the student groups as to age, ability, purpose, occupation, income, social status, kinds of education desired, and methods and techniques used; and, third, an interpretation of the various factors and conditions in terms of social and industrial forces of the times.

THE PROGRESS OF JUNIOR HIGH SCHOOL REORGANIZATION IN CHICAGO

A recent six-page issue of *School Facts*, published by the school authorities in Chicago "to help enlighten the public concerning the work of the schools and the problems that confront them," is devoted almost entirely to the junior high school movement. It reports that since 1924 twenty-one new junior high schools have been opened in the system and that five more are opening this autumn. The article has the following to say concerning the facilities and the special services of these schools.

A seventh- or eighth-grade pupil who attends a standard junior high school has the following educational opportunities not usually available in the traditional eight-grade elementary school: courses in general science, electrical shop work, printing-shop work, general metals shop work, typewriting, stenography, and various similar courses; band, orchestra, and glee-club participation; library work under supervision of a trained librarian; swimming, special or corrective gymnasium work, interschool physical contests. The pupil and his parents have some choice of the course of study to be pursued to fit the training to the special needs, aptitudes, and interests of each individual, instead of all pupils having to take one more or less fixed and standardized course of study. The opportunity is usually more readily available for the bright child to be accelerated through rapid promotion. Finally, through gradual acquaintance with the junior high school plan of departmental organization, a child is prepared for senior high school methods and is more likely to "bridge the gap" between elementary and senior high school without maladjustment or failure.

In response to a request from the White House Conference on Child Health and Protection for a description of "Superior Schools in the United States," Superintendent William J. Bogan recently submitted the following statement:

"The Foreman Junior High School building is a Chicago 'type school.' The building is U-shaped with a front depth of 685 feet and wing depth of 268 feet. It is of steel and concrete frame with brick exterior. It classifies as 'fireproof' under the severe Chicago Municipal Building Code. It is three stories in height and has a maximum of 2,250 pupil capacity.

"There are twenty-seven regular classrooms (24 feet by 30 feet) with specially-designed built-in cases recessed in the walls.

"The administration suite contains offices for the principal, assistant principal, dean, and vocational adviser. The space for clerks is separated by a counter from the space set aside for the public.

"The auditorium seats eight hundred persons and is suitable for public use after school hours.

"There is a civics room for receptions and for use by student clubs. It adjoins the dean's office and contains a kitchenette.

"The boys' gymnasium is 60 feet by 100 feet and adjoins a shower and locker room containing individual lockers 12 inches by 36 inches for each boy in the school.

"The girls' gymnasium is also 60 feet by 100 feet and adjoins a girls' shower and locker room with lockers for each girl and also sixty individual shower and dressing compartments constructed of marble. The matron in charge of the girls' shower room stands on a platform at the end of the shower tier where she can see the head and shoulders of each girl and make sure she is taking a shower before donning her suit. This matron also controls the water from a central control valve. After the shower and before entering the swimming pool, the class passes through a run-way shower and through a floor bath.

"The corrective gymnasium (34 feet by 43 feet) is equipped with mirrors and special apparatus for the correction of incorrect posture and deformities.

"The swimming pool (24 feet by 60 feet) is equipped with filters and chlorine injectors.

"The ceilings of gymnasiums and the natatorium are treated with sound-absorbing material to better the acoustics. The walls of all gymnasiums, locker and shower rooms, and natatoriums are of glazed brick. The floors of the natatorium and shower and locker rooms are of non-slip tile.

"There is a medical suite containing an office and physical-examination room adjacent to the gymnasiums for use by the school doctor, school dentist, and school nurse.

"There is a cafeteria lunchroom seating five hundred pupils at a time. This room and its kitchen are also lined with glazed brick.

"A library seating 120 persons is placed on the first floor with an outside entry so that it may be used as a branch of the public library after school hours.

"Four general-science rooms (with workrooms adjoining) are equipped with demonstration tables, aquariums, and germinating tables.

"There are four art rooms (placed for north light), two mechanical drawing rooms (also placed for north light), and two commercial rooms.

"There are a band and orchestra room and a chorus room. These rooms are insulated from the rest of the building and are lined with sound-absorbing material. They are equipped with a unit system of ventilation so that the possibility of noise being transferred to the other parts of the building via the ventilation ducts will be eliminated.

"There are two sewing rooms, two cooking rooms, one wood shop, one electric shop, one general-metals shop, one print shop.

"All regular classrooms face either east or west so as to receive some sunshine during the day. The gymnasiums and natatorium are placed at the south end of the building so as to have the benefit of sunshine throughout the day.

"The building is heated and ventilated by the straight blast system for equal distribution of fresh, washed, warm air to all parts of the rooms. This air is changed in classrooms at the rate of twenty-five cubic feet per minute for each pupil.

"Two toilet rooms for both boys and girls are provided on each floor. The walls of these rooms are also lined with glazed brick. The floor is of tile and the toilet stalls are marble.

"The corridors are fourteen feet wide and lead directly to a stair at the end of each corridor. There are no dead ends to the corridors, and all rooms have two exits. By using recessed steel lockers in the corridor walls we have lessened the chance of spreading contagious diseases that might be transmitted through clothing. The walls of the corridor between lockers are glazed brick. The base and border are terrazzo and field mastic tile.

"The school playground provides 125 square feet per pupil, based on a maximum membership load."

Among the things accomplished by the junior high school which cannot be so well done in the elementary schools, are the following:

1. It has been felt that in seventh and eighth grades in elementary schools there was some loss of time in academic studies, which would be better employed in various life-activities which would awaken the interest of the pupils and reveal to them their own abilities. Pupils of this age need to explore and develop their individual capacities through a wide variety of new contacts and experiences. The old form of organization needlessly deferred those experiences leading the pupil to the construction of vocational preferences.

2. It provides a rich and varied curriculum for seventh and eighth grades more economically than if the same studies were attempted in all the elementary schools.

3. Through an outright departmental organization and promotion by subjects there is greater flexibility, and pupils need not repeat an entire course because of failure in one or two subjects.

4. It gives greater attention to social and extra-curriculum activities, as in auditorium work and various clubs, and thus affords the pupils opportunities proper to their age and development.

5. By grouping together the seventh- and eighth-grade pupils who have reached the period of adolescence, it is possible to administer a better and more free form of school discipline than that possible in the elementary school. Adolescent children need special guidance in the trying period when they are passing from control by others to self-control.

6. It makes better provision for individual differences because the same course of study is not required of all the pupils.

7. Through giving an opportunity to explore various types of work, it looks to different futures for different children. The ordinary academic course gives the same outlook to all.

8. The weariness with school life which often develops in children during the seventh and eighth grades and which is intensified by the abrupt transition to the radically different methods of the high school is largely responsible for so many leaving school at this period. The junior high school, as has been pointed out, appeals more strongly to the interest of adolescent children and adjusts them to secondary-school organization.

NEW EVIDENCE WITH REGARD TO THE SIZE OF RURAL HIGH SCHOOLS

From time to time someone calls attention to the large proportion of rural high schools, to their small size, and to their inherent problems. The latest person to study this phase of education is W. H. Gaumnitz, specialist in rural-school problems in the United States Office of Education. Mr. Gaumnitz has been at work on an investigation of the rural high school and recently made certain of his findings available to the *United States Daily*. Because of certain refinements in the classification of schools and other improvements in the manner of handling his evidence, it appears profitable to draw freely from the materials of the investigation.

A recent survey of enrolment in rural areas with a population of less than twenty-five hundred discloses, Mr. Gaumnitz said, that the overwhelming majority of four-year high schools have enrolments of less than one hundred students each.

Reports from 14,143 rural high schools scattered throughout the nation show that of 9,926 regular four-year types, 7,500 have enrolments ranging from 100 to 5, and 2,426 have enrolments ranging from 101 to over 200. Of these high schools, 63.3 per cent have a faculty of four teachers or fewer.

A study of the statistics on all types of high schools in the rural areas, including the four-year type, the three-year, two-year, one-year, and various re-organized types, sets forth the number of schools and the pupil enrolment. These statistics presented by Mr. Gaumnitz reveal 128 rural high schools with enrolments varying from 1 to 5 students each; 284 with enrolments varying from 6 to 10 students; 1,396 schools with enrolments varying from 11 to 20. There are 1,427 rural high schools with enrolments of from 21 to 30 students each; 1,433 with enrolments from 31 to 40; and 1,375 with enrolments from 41 to 50 each. The largest number of schools within the variation of enrolments was that caring for 51 to 75 students each and totaling 2,875. Of the 14,143 schools reporting, 1,797 had enrolments of 76 to 100 pupils each; 1,155, enrolments of 101 to 125; and 748, enrolments of from 126 to 150. A total of 457 cared for

pupils varying in number from 151 to 175, and 340 registered from 176 to 200 students. Of the 14,000 schools, Mr. Gaumnitz pointed out that only 728 had enrolments in excess of 200 students.

The burden placed upon individual teachers in the rural areas of the country is enormous, the specialist declared. Of the 14,143 high schools of all types reporting, there are 1,479 schools in which only one teacher is employed to teach all the subjects and 2,337 schools in which two teachers assume the whole responsibility.

The most startling significance of the statistics appears in the fact that of the 9,926 regular four-year high schools, 13.4 per cent are equipped with a teaching staff of two or one, while 2,819 regular four-year high schools, or 28.4 per cent, have only three teachers each. There are 2,131 others which have only four teachers to care for all the subjects taught, thus accounting for 21.5 per cent of the total.

Looking at the statistics in reference to the regular four-year high schools from another point of view, Mr. Gaumnitz called attention to the fact that 63.3 per cent of them have a faculty of four or fewer, while of the remaining 36.7 per cent, 996 schools, or 10 per cent, can boast of eight or more teachers.

The distribution of teachers among the various types of rural high schools, Mr. Gaumnitz said, is as follows: 1,479 schools have one teacher each, 2,337 have two each, 3,139 have three each, 2,385 have four each, 1,639 have five each, 1,055 have six, 637 have seven, and 1,471 schools have eight or more each.

In addition to reporting this evidence, Mr. Gaumnitz discusses further implications of the study which are not quoted here. The study as a whole emphasizes once more the pervasive and persistent character of the problem and the fact that the problem can be solved only by the use of much intelligent effort in improving or eliminating these small schools or in working in both directions at the same time.

EVALUATING RADIO PROGRAMS FOR JUNIOR HIGH SCHOOL GRADES

Notwithstanding the frequent advocacy of the use of radio in the schools there has been little effort to ascertain its effectiveness in entertaining or instructing pupils. A step in this direction was taken under the auspices of the United States Office of Education at the invitation of a private corporation which presented a series of programs by an organization bearing the name "American School of the Air." The programs were presented on Tuesdays and Thursdays and were intended for pupils in the sixth, seventh, eighth, and ninth grades.

The programs were in two series and of two chief types. One of

these, which was designated as "historical and biographical," included sketches of Columbus, Raleigh, John Smith, William Brewster, La Salle, Washington, Jefferson, Boone, Fulton, Lewis and Clark, Houston, Lincoln, and Lee, and gave incidents taken from the history of aviation under the title "Heroes of the Air." There was also a program broadcasting the funeral services of William Howard Taft, which took place at the time set for a program dealing with Junipero Serra, California pioneer, and was therefore substituted for the original program. The presentations were made by narrative and dialogue. The placing of a scene and the introduction of the characters were followed by the dramatization of an incident in the hero's life.

The other series was designated as "literary and musical" and included presentation of the Greek myth of Persephone, poetry by Edwin Markham, an adaptation of *Treasure Island*, and a fantasy called "Friends in Bookland"; debates on the relative educational benefit of books and of the radio and on the relative economic benefits to be derived from airways as compared with those already derived from railroads; discussion of the art topic "Coming of Spring"; musical numbers by the National High-School Chorus and by the National High-School Orchestra; folk music; two health programs by the Junior Red Cross; a nature-study program entitled "Spring at the Smiling Pool"; and an "International Good Will" program.

The method of evaluation used was the responses to questionnaires by pupils and teachers. Likes and dislikes were indicated by pupils for each program in accordance with requests such as the following: "Check the type of program you have most enjoyed." "Check the type of presentation you have most enjoyed." "Check the type of music you have most enjoyed." "Have you heard distinctly what is said or sung?" "Do you enjoy music in the programs?" "What do you like best about the radio programs?" The teachers were asked to state the types of programs and presentations most enjoyed by their pupils and in what degree each program was adapted to the comprehension, interest, and experience of the pupils.

Twenty-five states were represented in the questionnaires returned, thirteen from the middle-western group, eleven from the

eastern group, and one from the far west (California). The proportion of returns was disappointingly small, only 10 per cent of the blanks distributed. However, to the investigator in charge for the Office of Education, Florence C. Fox, associate specialist in elementary education, the number returned seemed large enough to afford a basis for "some general conclusions," which follow.

1. History is the subject most enjoyed by the pupils.
2. Dramatization is the type of presentation they prefer.
3. The band is the favorite type of music.
4. Books and pictures are the material most often used in preparation for the programs.
5. About 85 per cent of the pupils have heard the programs distinctly.
6. The selections have been too mature for the pupils' comprehension, interest, and experience in many instances.
7. All the children enjoy music.

Readers interested in securing a more complete report of the investigation are referred to Office of Education Circular No. 17, "Children's Preferences in Radio Programs" by Florence C. Fox.

THE DEVELOPMENT OF HIGH-SCHOOL LIBRARIES IN WEST VIRGINIA

Educational News, a publication of the State Department of Education in West Virginia, in its issue of July-August, 1930, asserts that the growth of library facilities in the high schools of the state during the last few years has been one of the most satisfactory parts of the high-school program. Superintendents, principals, and teachers have devoted much effort toward the provision of better library opportunities.

Evidence is reported showing that the high-school libraries in this state contain a total of more than a half-million volumes. The amount spent for these libraries during the school year 1928-29 was more than \$86,000, and the amount budgeted for the school year 1929-30 was more than \$100,000.

Another indication of the rapid growth of these facilities is seen in the increase in the number of librarians during the period from 1926-27 to 1929-30, which is shown in the table on page 654. During three years the number of full-time librarians was almost trebled, and the number of part-time librarians was more than doubled.

This development is more rapid in West Virginia than in most states owing to special stimulation by the state department. How-

School Year	Full-Time Librarians	Part-Time Librarians
1926-27.....	27	86
1927-28.....	43	88
1928-29.....	57	105
1929-30.....	73	175

ever, the attention being given to secondary-school libraries is increasing in many parts of the country. The significance of the library in secondary education is increasingly recognized.

THE FIRST ISSUES OF THE "JUNIOR COLLEGE JOURNAL"

The proposed publication of a periodical devoted to the interests of the junior college was announced in these pages some months ago. In accordance with the details of the announcement the first issues of the *Junior College Journal* are now making their appearance. This journal is published "under the joint editorial auspices of the American Association of Junior Colleges and the School of Education of Stanford University." It is published at Stanford University, California, and will be issued monthly from October to June, inclusive. The editor-in-chief is Walter Crosby Eells, of Stanford University, well known for his scholarly contributions to the literature of the junior-college movement, and the associate editor is Doak S. Campbell, of Peabody College, who has for many years served as secretary of the association.

The October issue opens with an introduction by Ray Lyman Wilbur, secretary of the United States Department of the Interior, which is followed by an editorial, "Why Another Educational Journal?" The main body of the issue is given over to seven articles dealing with the junior college in a variety of significant relationships. There are a number of additional features, among them a section called "The Junior-College World," which reports the news of the institution, and sections entitled "Across the Secretary's Desk," "Reports and Discussion," "Judging the New Books," and "Bibliography on Junior Colleges." Some of these departments will quite properly become permanent features of the journal. With

content of the scope and character contained in this issue, the journal bids fair to render a constructive service during these early stages of the junior-college movement.

AN ILLUSTRATED SCHOOL NEWSPAPER

With the opening of the school year appeared the first issues of the *News Review*, to be published weekly during thirty-six weeks of the year by the Macmillan Company. The publishers announce that the New York Times Company, without participating in the ownership or promotion of the paper and without sharing in the editorial responsibility, makes available its news and pictorial and manufacturing facilities. The following are excerpts from a statement of aims and plans appearing in the issue of September 2.

Our purpose in publishing this new paper is to provide pupils of junior and senior high school age each week during the school year, with the exception of vacations and the closing weeks of school in the early summer, with an illustrated, *explanatory* summary of all the news of such general importance that it deserves to be studied in all the schools of the nation.

This is a weekly newspaper, not a magazine. A magazine is privileged to print interesting and accurate articles on any timely topics whatsoever and is not expected to explain all or even most of the important events since its last issue. A newspaper, on the other hand, is required to do so. In our columns, therefore, an effort will be made to give you, with such explanation as may be required, a brief report of all events, other than those of merely local importance, which are expected to be of the most general interest in schools. . . .

This paper, therefore, is not a mere summary of the news, or a report with explanations of a very few topics chosen at the whim of the editor, or a report of adult opinions about the news. Rather it is offered you as a self-interpreting, self-teaching summary of a large part of the news of each week that may be expected to be of value to young people.

The publishers of this paper are most fortunate in effecting an arrangement with a great metropolitan newspaper. . . . This arrangement makes it possible for us to give you from week to week timely, interesting, and frequently beautiful pictures of current happenings. For the most part these will illustrate items in the text, but from time to time we shall include interesting photographs which, with their titles, are self-explanatory.

The *News Review* will be published on Mondays to enable the schools as far distant as those on the Pacific Coast to receive their copies for use on the day of publication. Copies will be mailed from New York City on the preceding Wednesdays.

TYPES AND FIELDS OF CURRICULUM RESEARCH IN SECONDARY EDUCATION DURING 1929

HARL R. DOUGLASS
University of Minnesota

Early in the year 1930 the writer sent to two hundred professors of secondary education, deans of schools or colleges of education, and heads of departments of education a request for reports on any researches dealing with the curriculum which might have been completed or carried on during 1929 by themselves, their colleagues, or their students. The 1929 issues of eight periodicals most likely to contain reports of curriculum researches were secured, and some half-dozen books and monographs which deal with curriculum research were investigated. From these sources data relative to seventy-four curriculum researches on the high-school level were obtained. Forty of these studies were Master's theses, and eight were Doctor's dissertations. One could hardly fail to observe the distinct superiority of many of the theses over most of the studies reported by persons who were not graduate students. It seems wasteful that a number of the more valuable of the theses will probably not be published. Fifty, or two-thirds, of the studies reported have not been published, although a number of them, as yet uncompleted, will no doubt eventually be reported. While it is certain that other curriculum researches were made during the year, it seems likely that the seventy-four studies which came to the writer's notice represent an excellent sample of the research studies dealing with the secondary-school curriculum made in 1929. Using these reports as a basis, the writer has attempted to construct a picture of the nature of the research dealing with the secondary-school curriculum which is being carried on at the present time, its special fields of activities, its aims and objectives, its methods of investigation, and its types of data.

The most striking fact is that in practically all cases the field of study was confined to the subjects as now organized in high schools

and did not include the objectives of secondary education. Apparently, the persons carrying on these researches began with the preconceived idea that the prevailing plan of employing the separate logical bodies of organized knowledge as the curriculum should be taken for granted as the permanent plan of organization of the curriculum.

Classified by subjects, the number of contributions in the field of English (twenty-two studies) was greatest. History and the social studies were represented by twelve studies, science by nine, mathematics by eight, and industrial arts by four. Household arts, Latin, and character education were each represented by two studies; and study of vocations, music, art, physical education, commercial subjects, professional education, and religion, by one each. Six of the investigations dealt with the curriculum as a whole. None of the seventy-four studies was devoted to modern languages. In view of the chaotic condition of instruction in the fine arts, it seems unfortunate that more attention has not been given to research in this field. When the dozens of discussions of an empirical or philosophical nature relating to instruction in foreign languages and commercial studies are recalled, it is startling to find that but 4 per cent of the studies related to these two fields. Although health (and physical education) heads the list of the seven objectives of secondary education, but one of the seventy-four studies of the curriculum was devoted to that field.

Some interesting facts are brought into relief when the studies are classified in the following categories: (1) historical studies, (2) surveys of present practices, (3) studies related to what the curriculum should be, and (4) studies aimed at the development of facts which contribute toward a background for the selection and arrangement of materials but which do not deal directly with curriculum construction. Only two of the researchers made historical studies. Twenty-four of the investigations were surveys of present-day practices. An encouraging trend may be seen in the fact that thirty-eight studies attempted to throw light on the question of what the curriculum should be, twenty-two of which involved experimental or statistical procedures. Yet, the large majority of these twenty-two studies were neither controlled experiments nor experiments

which involved objective criteria of the contributions made by the instructional materials to the ultimate objectives of secondary education. More than half of the twenty-two studies were activity analyses and were calculated to throw light on the question of what instructional materials are needed. Almost all the studies which were experimental in nature were attempts to discover the practicability of certain defined units or arrangements of materials by means of uncontrolled tryouts, subjectively evaluated. The background studies, of which there were seven, attempted to discover interests or capacities of pupils which would condition the value of certain units of subject matter, for example, reading interests in literature and vocabulary difficulties of textbooks. These studies might logically have included those which were essentially activity analyses, for such studies, valuable as they are, merely determine the needs on which the curriculum must later be based. The remaining three studies were general in nature and cannot be definitely classified with any one of the four types mentioned.

Certain other tendencies are discernible when the studies are classified on the basis of whether the major problem had to do with one of the following points: (1) the content of courses of study, (2) the objectives of instruction, (3) the organization of items or units in the course of study or grade placement, (4) the evaluation of materials now taught, (5) the present status of studies in the curriculum, or (6) the offerings in secondary schools.

Forty-six investigators dealt with the content of courses of study, seventeen with the objectives of instruction, fourteen with organization or grade placement, four with the evaluation of materials now taught, five with the present status of studies in the curriculum, and four with the offerings in secondary schools. In other words, the major emphasis was on what should be taught rather than on what are or should be the objectives of the various fields of instruction and how they should be arranged or placed.

That much attention is being given to the curriculum of the junior high school may be seen in the fact that thirty-nine, or more than half the studies, dealt with the curriculum of the lower school. Thirty-two dealt with the senior high school and seven with the junior college. Apparently research to determine the instruction

which shall be given in the junior college is just beginning. It is to be hoped that research on this level will be forthcoming before a traditional curriculum has crystallized in this new institution.

The types of data employed were varied, two or more varieties often being employed in the same study. No particular type is characteristic. Fourteen of the studies were activity analyses employing questionnaires, analytical reasoning, analyses of newspapers, and similar types of data. Fourteen employed questionnaires as the source of the data; sixteen were based largely on pertinent published literature; seventeen employed documentary data, including courses of study but not textbooks; ten made analyses of textbooks; fourteen employed test scores; nine involved experimental studies; and four utilized ratings of materials of instruction made on the basis of their probable relative value. While no really significant differences were noted, studies in the field of history and the social studies avoided activity analyses and questionnaires and frequently employed published literature, documents, and test scores. Investigations in the sciences, in English—especially those relating to composition—and in industrial arts employed freely the method of activity analysis, three of the four studies in industrial arts being of this type. The studies in mathematics were based largely on published literature, documents, and textbooks. Both studies in Latin were based on textbooks.

Perhaps the number of studies in any field, except that of English, is too small to warrant generalizations for each subject. The twenty-two studies dealing with English are almost evenly divided between those relating to literature and those relating to written or spoken English. The studies of literature tended to employ questionnaires, which were used largely for discovering interests of pupils and opinions of teachers. The studies dealing with composition relied largely on experimental methods and test scores and the published literature. English is one of the few fields in which the theses of graduate students were exceeded in number by studies carried on by those not candidates for degrees. The four studies in which attempts were made to evaluate present practices were made in English. Interest was almost evenly divided between the junior and senior high schools in the studies of English. The proportion of those dealing with con-

tent to those investigating present practices was smaller than in most other subjects.

Of the twelve studies in history and the social studies, but two were confined to history alone, both unpublished Master's theses. Singularly, none of these investigations was primarily concerned with grade placement, and those that dealt with organization did so as a joint or subsidiary objective. Unlike the studies in English, little use was made of the judgments of either pupils or teachers as to what should be taught, but somewhat more reliance was placed on the experience and opinions of the authors of the reports.

In the field of natural science, chemistry received the lion's share of attention, as four of the nine investigations dealt with this subject. Physics and general science were dealt with in two studies each and zoölogy in one. Of four studies in this field which may be characterized as attempting to discover what should be taught, three were based on activity analyses and one on experimentation. The studies in science were characteristic in that they were concerned with what the objectives of science-teaching are or should be. None of them involved the study of organization or grade placement. Contrary to the general trend, more attention was given to the senior high school in the studies of science, five studies being concerned with the senior high school, three with the junior college, and two with the junior high school. The studies in science made little use of questionnaires and no use of experimentation.

The studies in mathematics were, on the contrary, little related to objectives but attacked the problems of content and of organization of content. Only one study was concerned with the senior high school, five with the junior high school, and two with the junior college. The researches dealing with the curriculum in mathematics tended toward studies of present practices and experimental courses of study and relied largely on textbooks, courses of study, and experimental tryouts.

Three of the four studies in industrial arts were activity analyses and relied on questionnaires, interviews, and deductive analysis.

It is interesting, though somewhat discouraging, to note that there were but three studies outside the fields of subject matter as we now know them—two in character education and one dealing with the

home problems of boys. Tradition, conservatism, and inertia apparently maintain a strong grip on research workers. Perhaps the safe way to make progress is through evolution rather than revolution, but it seems that curriculum research (and certainly, to a greater extent, practical curriculum revision not involving research) is largely patchwork and tinkering and the rehabilitation of an out-worn shell by the shuffling-around of old materials.

The curriculum is still thought of in terms of four major subjects and one or two minor subjects and in terms of five-hour classes. Algebra and geometry, American history, traditional English classics, Latin grammar, Caesar's *Gallic Wars*, Cicero's orations, plane and solid geometry, and other traditional units of subject matter are taken for granted in the program of studies; and, with these guideposts fixed, some vocational studies (usually already formalized), some music, some art, and (reluctantly) a little physical education are sprinkled in. When the school system of a large city initiates a project for the revision of the curriculum, experts from various colleges of education are called in to give lectures, committees are appointed, and the whole system becomes fired with the fever of a great undertaking. Much publicity ensues. The superintendent who initiated the revision of the curriculum may be called to the superintendency of a larger system or to a college professorship; the perspective of the participating staff of teachers is materially widened; but somehow the resulting courses of study as actually taught in the classrooms persist in presenting a striking resemblance to the old courses. Sometimes the resemblance is so close that one has to look closely to be sure that the courses are not the old ones.

The writer believes that research is essential to the study of problems relating to the curriculum, but he also believes that to a large extent the contributions of research to the secondary-school curriculum have as yet been trivial and have been based on preconceptions which in themselves are not established on scientific foundations and which to many educators seem definitely unsupportable. This situation is, perhaps, to be expected because the project of a candidate for the degree of Master of Arts is, of necessity, limited in scope and because the majority of other research workers, having no opportunity to carry on experimental work, must employ indirect

methods of study in investigations of the curriculum. The present organization and status of the curriculum is certain to determine the nature of many projects. Like other researches of the past generation in education and elsewhere, current secondary-school curriculum researches, in the main, give the impression of being discouragingly inadequate in scope. Unlike the researches of Galileo, Huxley, Darwin, Kepler, Pasteur, and other men of their type, modern research seems to emphasize many short projects instead of a few major contributions. Apparently, the demand for constant publication is militating against large-unit and long-time researches. The research worker seems to fear that he will lose out in the struggle for prestige and position and is unwilling to forego immediate recognition in favor of the tributes of posterity.

SUMMARY OF INVESTIGATIONS OF EXTRA-CURRICULUM ACTIVITIES IN 1929. II

PAUL W. TERRY
University of Alabama

This article is the second of a series of two articles concerned with the literature in the field of extra-curriculum activities published in 1929. The first article gave an annotated bibliography of forty-six studies. In the following pages a brief summary will be given of most of the studies in which the treatment of the subject is of a quantitative nature and of a number of the studies that offer critical analyses. Some overlapping in the classification of the references was found to be unavoidable. The limitations of space make it impossible to give much attention to the techniques of the investigations except in the case of two studies under the first classification, in which the method of attack constitutes the author's most significant contribution. Students in the field of extra-curriculum activities will be interested to observe the noteworthy progress that has been made in evaluating the effects on the pupils of participation in extra-curriculum activities and in bringing various activities into line with educational objectives.

GENERAL TECHNIQUES OF EVALUATION

The rapid expansion of programs of extra-curriculum activities in recent years has increased the urgency of the problem of evaluating the activities. A subcommittee on extra-curriculum activities of the North Central Association of Colleges and Secondary Schools presented a report (11)¹ suggesting a plan by which studies of evaluation can be undertaken on a large scale. After an extensive canvass of the literature of the field had been made by the subcommittee, twelve types of activities were distinguished, such as "Participation

¹ The numbers in parentheses refer to the numbered bibliography in Paul W. Terry, "Summary of Investigations of Extra-Curriculum Activities in 1929. I," *School Review*, XXXVIII (October, 1930), 605-12.

in the Organization, Management, and Control of the School," which was given as Type One. Under each type large numbers of specific student experiences were listed, such as "patrolling the halls" and "visiting the sick." This extensive list of specific activities, classified under the twelve types and their subheads, was given to a class of thirty-two graduate students with experience in teaching and administration. They were instructed to check the activities which contribute to the fulfilment of the objectives—training in health, training in the use of leisure, social training, and vocational training—which had previously been defined to them. Under each objective four columns were provided which enabled the persons checking the list to indicate whether a given activity contributes toward (1) the acquisition of knowledge, (2) the development of attitudes, interests, and motives, (3) the development of mental techniques in memory, imagination, judgment, and reasoning, and (4) the acquisition of right habits and useful skills. Only the activities in Type One were evaluated, and the conclusions include little more than a report that 2,618 checks were placed under training in health, 6,602 under training in the use of leisure, 9,545 under social training, and 6,958 under vocational training. A comparison of the number of checks indicates which objectives are facilitated most by the activities included in Type One. The chief value of the report lies in its description of a technique by which all types of activities can be evaluated in detail by a large number of competent judges. An undertaking of this nature would be difficult, time-consuming, and costly; but it would be well worth while if it could be carried out in such a way as to make the results practically useful to principals, teachers, and students of the subject.

Bickham (4), one of whose ultimate purposes was to secure information for the proper guidance of high-school graduates, visited sixty colleges and studied certain of these intensively with the object of developing a technique of social analysis of college communities. Much attention was given to extra-curriculum activities. The four techniques which he devised include (1) preliminary observation of the groups and social forces both in the community and in the college that interplay in the latter, (2) the working out of a "life-history" of the institution and histories of numerous individuals

(with the aid of a "student-experience record"), which will point out maladjustments in the institution and lines of personality strain as well; (3) the use of case work and interviews to penetrate the *blasé* exterior of students and uncover behavior difficulties, and (4) the analysis of all the data in a way that will show the relations of the students to their organizations and the effect of these relations on personality. The final report of Bickham's study has not yet been published. This preliminary description of the techniques is given because it is obvious that they can be applied fruitfully to the study of the high school as a community and that they can be expected to uncover significant behavior problems in the relation of students to extra-curriculum activities which have not been brought to light by the techniques heretofore used.

EVALUATION OF PARTICIPATION IN EXTRA-CURRICULUM ACTIVITIES

A number of investigations were concerned with the extent and the intensity of the participation of students in extra-curriculum activities and with the relation of participation to such factors as scholarship, intelligence, occupational status of the father, later activity in the community, and success in life. Chapin's extensive and valuable cross-section study (9) of conditions at the University of Minnesota in 1924-25 shows that one-third of the students, including 514 in the Senior college, were taking part in no activities, while 40 per cent were active in two or more. The percentage of upper-class men who were active was larger than the corresponding percentage of lower-class men; women were more active than men; and the members of the Senior class were more active than were the members of any other class. The groups in which large percentages of the students were active also participated in a larger number of organizations per student than did the less active groups. Among the student leaders the most intensive participators were members of honor societies, such as Phi Beta Kappa, and these took part in four or five activities each as compared with an average of three for the students who were designated as "prominent" by various organizations on the campus. Students who were engaged in several activities maintained a slightly higher standard of academic

achievement than did those who were less active or non-active. The community activities of 408 alumni who had graduated ten to fifteen years earlier were compared with their activities in college, and it was found that there was a definite tendency on the part of alumni to continue participation in activities similar to those in which they had engaged in college. This fact suggests that social experience gained in college is more immediately and directly applicable to adult opportunities than has hitherto been made clear. It is not without significance, moreover, that 63.6 per cent of the alumni expressed the opinion that the extra-curriculum activities are as valuable as, or more valuable than, class work requiring the same amount of time.

Additional evidence of the value of student activities is reported by Shannon (38) in a study of the post-school careers of seventy-six graduates of the Garfield High School, Terre Haute, Indiana, from 1914 to 1919. Twenty-five leaders in school activities made a better showing than did thirty-two honor-roll members and a random group of thirty-two individuals with respect to most of the following points of comparison: occupational status, annual income, academic degrees, special honors, outstanding achievements, and evidences of leadership in the community. The honor-roll group did not succeed so well as the random group with respect to one-half these items. While the small number of cases, overlapping of groups, and subjectivity of the criteria of success limit the decisiveness of the conclusions, the study suggests that the qualities that lead to success in life may be exercised more effectively in extra-curriculum activities than in the regular curriculum.

The scores on the Thorndike intelligence examination of the presidents or captains of fifty-eight organizations or groups at Stanford University were compared by McCuen (26) with the average scores of the members of the groups. The groups included living groups, eating clubs, professional organizations, social organizations, and athletic groups. A wide range of intelligence was shown by these leaders; the scores of thirty-five were above the average score of their groups, twenty-one were below, while two were at the average. The correlation between the scores of the leaders and the average scores of their followers was $+ .40$. The

men more than the women showed a tendency to select leaders with intelligence above the average. McCuen's conclusion is that, although other qualities may be given primary consideration in the selection of leaders, these groups of students tend to select leaders slightly above their average in intelligence.

Several investigations were concerned primarily with the effect on scholarship of participation in extra-curriculum activities. Knox and Davis (23) found that the average marks in scholarship of 854 participants in general activities, other than purely social undertakings, at the University of Colorado were higher than those of 4,523 non-participants and higher than the average marks of the 5,377 persons in the entire group studied. Especially notable was the superiority of active women. The superiority of the participants, both women and men, varied with the number of activities in which each engaged. Those who took part in one activity were close to the average of the participants, those in two activities had a higher average than that of the active group, but those in three activities had a slightly lower average.

Constance (10) compared the marks received in the autumn terms of 1927 and 1928 by fraternity and sorority Freshmen with those received by non-fraternity and non-sorority Freshmen at the University of Oregon. In spite of a lower prediction on the basis of intelligence tests and high-school marks, the fraternity and sorority Freshmen excelled their fellow-classmen "outside the houses." Their superiority is attributed by the investigator to the fact that the "houses" bring pressure to bear on their Freshmen to make them study. If this interpretation be accepted, it is a case in which better scholarship is clearly attributable to the influence of participation in extra-curriculum activities rather than to the effects of superior ability.

Except in the case of athletes participants in the more important activities in four high schools were found by Monroe (30) to excel non-participants in both intelligence quotient and median school mark. Non-participation during a semester did not result in marks higher than those made by the participants during active semesters. The higher correlations between intelligence and marks in the case of the participating groups suggest that participation stimulates a

pupil to do work which is more nearly commensurate with his intelligence than is the work of the non-participating pupil.

The relation of the occupational status of the father to participation in clubs was studied by Towell (43) in the Lyons Township High School at La Grange, Illinois. The percentages of the children of the higher occupational groups found in clubs were decidedly higher than the corresponding percentages of children of the lower occupational groups. The inference is that superior home background exercises a stimulating influence on participation in this type of activity. That the character of the student himself, however, is also an important factor may be inferred from the fact reported by Sturtevant and Strang (42), in a study of a small number of girls, that girls who presented disciplinary problems did not engage in the extra-curriculum activities of the school, whereas all but three of ten superior girls took part in such activities.

Sims (39) investigated the relation of hazing to the degree of student participation in control by means of a questionnaire answered by fifty-six colleges, selected at random, with enrolments of from five hundred to two thousand students. His tables show that hazing is likely to be a serious problem in institutions where the administrative policy is to prohibit hazing by standing rules and regulations but that hazing is not serious in institutions where the administrative policy is to allow the students to control hazing under proper guidance.

The factor of selection is strongly emphasized by the studies dealing with the evaluation of participation which have been summarized. In one or more of these investigations participants were found to be above the average in intelligence, scholarship, character, and home background. Evidence is not lacking that the experiences of participation produce values of an educational nature. This conclusion is implied by the favorable opinion of alumni, by the greater success in life of leaders, by the stimulation of their Freshmen on the part of fraternities and sororities, by the continuation on the part of graduates of participation in activities carried on in college, by the higher correlation between intelligence and scholarship in the case of participants than in the case of non-participants, and by the possibility that the reduction of hazing may be due to participation in control on the part of students. It is obvious, how-

ever, that much more work of an evaluative nature needs to be done. Special tests will probably have to be devised before it can be demonstrated quantitatively that the educational values hoped for in extra-curriculum activities have actually been achieved.

ADMINISTRATIVE PROBLEMS

Several reports are concerned with important administrative problems. In a study of 110 beginning teachers who were graduates of the Ohio State University, Anderson (1) found that 70 per cent were in charge of one or more extra-curriculum activities, among which were some of the most difficult to manage; 16 per cent were in charge of three or more activities; and 35 per cent spent five or more hours a week in this work in addition to other duties.

The replies of the administrative officers of forty-two teacher-training institutions to letters of inquiry sent out by Barr (3) show that the value of adequate training in the supervision of student activities is generally recognized but that little systematic effort is made to meet the demand. Courses in the theory of extra-curriculum activities, courses in such fields as music and dramatics, participation in activities, and practice in supervision constitute the four types of training that are available.

The question of the advantages and disadvantages found in large and small schools in the development of a program of extra-curriculum activities was studied by Roemer (33) with the aid of 105 graduate students who checked on a blank 64 items listed as advantages and disadvantages. The advantages of a large school include splendid equipment, able specialized teachers with diverse talents, and large opportunity for the development of leaders through a great number and variety of activities. Close contacts between students and teachers and the opportunity for individual direction are the outstanding advantages of small schools, but large faculty turnover and the comparatively poor equipment of teachers in small institutions minimize these advantages. The facts as reported can be construed as a strong argument for the consolidation of small schools.

PROBLEMS RELATING TO ATHLETICS

During the year 1929 a considerable amount of attention was given by investigators to problems arising out of high-school and col-

lege athletics. Two studies are concerned with the special needs of girls and women. Rogers (34) asserts that the female body is poorly adapted to extremely vigorous use of the arms and legs, that the muscular strength of maturing women diverges sharply from that of men, that periodic functional disturbances often disqualify women for participation in regularly scheduled events, and that severely competitive sports tend to develop mental and emotional traits which are inimical to natural feminine health, happiness, and attractiveness. On the basis of these facts the author concludes that girls and women should indulge in sports for recreation but should not be encouraged to take part in interscholastic or Olympic contests. Lehman and Witty (24) studied the comparative extent to which five thousand boys and girls from eight and one-half to twenty-two years old engaged voluntarily in two hundred plays and games. They found only two vigorous physical activities in which the girls of mature years participated to a greater extent than did the boys, namely, social dancing and folk dancing. This fact, the authors conclude, should be taken into account in the teaching and guidance policies of advisers and physical directors.

Smith (40) reports that only 15.49 and 14.30 per cent of the boys of two large Seattle high schools were members of the athletic squads at any one time during the year 1927-28. Changed social conditions incident to the Industrial Revolution have so increased attendance in the high school as to overwhelm the personnel and equipment provided for physical education. As a result, the limited facilities are taken up by the gifted, and the majority of the students are neglected—a situation which can be corrected only by providing a large program of intramural athletics. Students transferred from junior colleges to the three largest California universities were reported by Eells and Davis (13) to participate in university intercollegiate athletics in larger percentages than did students entering the universities directly from high school.

Two investigators compared the scholarship records of non-athletic men with those of students who received official Freshman or varsity athletic awards. Hindman (19) reports that athletics at the Ohio State University tend to hold students in school and to increase the likelihood of graduation and that the facts collected

do not indicate finally that athletics hold down the scholarship of athletes. In a similar study, however, Hutchinson (20) shows that different sports exercised different effects at Cornell College, Mount Vernon, Iowa; the football players, who as a group ranked third in intelligence among the athletic groups, ranked lowest (eighth) in scholarship.

By far the most significant event of the year, as far as the field of athletics is concerned, was the publication of the report of the Carnegie Foundation for the Advancement of Teaching (37). The report includes 350 pages of text distributed in twelve chapters and an Appendix, and its conclusions are based on a very extensive array of facts collected by expert investigators. In the space available for this summary it is impossible to include anything like an adequate digest of the conclusions. Comment will therefore be confined to the three chapters which are possibly of more immediate interest to the reader than the others. Chapter iv, "Athletics in American Schools," points out that capitalizing the athletic skill of boys for commercial purposes, for the amusement of others, or for providing buildings and equipment is an exploitation of youth by their elders for unworthy ends and endangers the health of athletes and corrupts their moral fiber. In chapter x, entitled "The Recruiting and Subsidizing of Athletes," the vicious practices which reach down into the secondary school are described in detail, and their effect on the character of boys is clearly set forth. Among other important facts it is shown in chapter vi, "Athletic Participation and Its Results," that, although athletes have more vigorous bodies (and hence brains) than non-athletes and about the same intellectual capacity, some factor apparently related to intercollegiate competition prevents them from intellectual performances which their capacities should make possible. Soccer, boxing, lacrosse, and football seem to exercise a more deleterious effect on scholarship than do other sports.

MISCELLANEOUS STUDENT ORGANIZATIONS

Various aspects of the work of certain student organizations were studied by a number of investigators. McNeil (27) found that more than four hundred college newspapers are published,

ranging in size from four to thirty-two pages and engaging actively about twenty-five students each. These students seldom receive academic credit for their services although they often receive monetary compensation, especially in the case of editors and business managers. There are today in the country thirty-two college dailies, thirty-five papers published two or three times a week, more than three hundred weekly newspapers, and about one hundred papers appearing oftener than once a month.

Help for the dramatic coach who needs to select a play is provided by Hallman (15), who lists the plays mentioned three times or more by the coaches of one hundred high schools in response to a request to name the six best plays produced in their schools in recent years.

Four articles present valuable constructive criticism of certain features of the newspaper, school annual, bands and orchestras, and boy scouts. In small communities, Harrington (17) states, the special advantages of a school page in the local commercial newspaper include small costs, wide circulation, the opportunity to link the school with the home and the community, the provision of an incentive for the practice of English composition, helpful student contacts with newspaper editors, and the provision of a medium of school publicity for educational officers. Butler (8) describes an experiment in which a high-school annual was produced at small cost, without advertisements, with widespread interest on the part of the students, and with the active co-operation of several teachers and a large proportion of the student body. Brown and Laing (6) believe that the value of school bands and orchestras as a means of training in the profitable use of leisure time can be increased immensely by the simple expedient of putting the system of instrumentation on the C and F basis, thus rendering the instruments useful for home entertainment with piano accompaniment. Kaulfers (22) points out eight difficulties which have been encountered in attempts to *incorporate* boy-scout troops in the school organization. His conclusion is that community organizations should sponsor scout work and provide leadership and that the school policy should be to *co-operate* with the work thus sponsored and led.

LOW I.Q.'S IN THE HIGH SCHOOL

ANNA W. NOCK

South Philadelphia High School for Girls, Philadelphia

The investigation which is reported in this article was made in the spring of 1928 in an attempt to learn whether the work in the so-called "extension classes" in the South Philadelphia High School for Girls had assisted the girls in their employment. These classes had proved their value in segregating a group of girls who were incapable of doing work of high-school grade. Pupils in the regular classes were no longer held back by the subnormal pupils, and the latter were freed from the sense of failure that had made truants of some and disciplinary problems of others. However, it had not been determined whether the girls were succeeding after the completion of the one year of training, whether they had been able to secure work of the type they wanted, and whether, having secured work to their liking, they could keep it. On the answers to these questions ought to depend the future orientation of the course.

As it was felt that there would be few replies to a questionnaire, the vocational counselor asked the girls to come to school during office hours of the evening school. The response was good. In order to make the report as complete as possible, visits were also made to the girls' homes. In this task the counselor was assisted by a student from the University of Pennsylvania and by several high-school Seniors. Only seventy-five, of a total of ninety girls, could be reached, the other fifteen eluding the workers completely; either they had moved, leaving no address, or they so evidently avoided persistent visits that it was useless to try further. This report is, therefore, based on interviews with seventy-five of the ninety girls who had completed the extension course at the time the study was made.

The extension course was established in February, 1923, in an attempt to provide educational opportunity for a group of girls

who were failing seriously in their high-school subjects. The intelligence and achievement scores of these girls were below the level necessary for successful accomplishment of high-school work.¹ Both for the welfare of these girls and for that of the girls who could do the work demanded of them, it was thought wise to try the experiment of placing the failing girls in a special class. The group, after being thoroughly tested, was given a program especially planned to train them for routine office positions. English, civics, and hygiene were retained with greatly simplified requirements. Typing and office practice were added. The emphasis in all work was on the relation of the girls to each other. They were the only homogeneous group in the school, the only one that stayed together throughout the school day and the school year. This fact quickly had its effect on the spirit of the girls, and they developed a pride in themselves as a group, which strengthened as success in their new course restored their faith in themselves.

Naturally, the one goal at the end of the year's course toward which every girl was striving was an office position. To most of them the kind of work did not matter—whether it was typing, filing, or general clerical work—provided they might work in an office and not behind a counter in a store or beside a machine in a factory. As office workers, they could flaunt their superiority in the faces of less fortunate brothers or sisters, and they would gain the approbation of the whole neighborhood as well as attain the goal of their high-school work. In a foreign group such as attends the South Philadelphia High School for Girls, where 60 per cent of the pupils are Jewish of East European extraction and another 20 per cent are Italian, the opinion of the neighbors is a mighty force. The neighbors believe that a high-school education is the door to all good fortune and particularly that it is the door which opens wide the way to that Elysian field, the modern office. It was not strange, therefore, that the extension-class group was unanimous in demanding office positions.

Of these ambitious sixteen-year-old girls, most of whom were pitifully undersized and marked by the distinctive features of their

¹ Anna E. Biddle, "Low I.Q.'s in the High School," *School Review*, XXXV (February, 1927), 134-46.

foreign origin, forty-five, or 60 per cent, attained their desire. With much pride and an amazing amount of seriousness and responsibility, they told the counselor of their work in various offices. The greatest number of them had found positions in the offices of department stores, where the clerical processes have been divided and subdivided to so great an extent that little demand is put on the intelligence of the workers. Nevertheless, the demands of the positions were such that most of the girls could not have secured the work if they had not had the clerical training given in the extension course or if they had not been able to remain in school until they were sixteen years old.

Sixteen of the seventy-five girls went on to evening school and achieved varying degrees of success. Only two girls completed courses in shorthand and were actually using it in their work, although eleven entered such courses, three of whom admitted lack of success. Others took courses in filing, comptometer-operating, and work more nearly within the scope of their abilities. The two girls who completed the shorthand course were receiving adequate salaries, but, with these two exceptions, there was no evident relation between salary and work taken in the evening school.

A detailed report of the information secured in this study is given in Tables I and II. The lowest beginning salary in clerical work was \$7.00 a week, and the salaries for beginners ran up to \$20.00. Seven of the seventy-five girls had advanced to salaries of \$18.00 or more, and one of them received as much as \$30.00 a week for overtime work in a political campaign. Forty girls had held seventy-one clerical positions. In forty-one of these positions the beginning salaries had been less than \$14 and in nineteen more than \$14. In thirty-three of the seventy-one positions, the final salaries had been less than \$14 and in twenty-eight more than \$14.

The following case stories are typical of the records of the girls who were studied.

The most successful girl in the group was Pupil 1. She completed her course in February, 1926, and was nineteen years old at the time of the interview. She had held but two positions, her earnings having progressed steadily from \$11.00 to \$21.00 a week. She had done filing, typing, and billing; had operated an Elliott Fisher billing

TABLE I

RECORD OF EMPLOYMENT OF SEVENTY-FIVE GIRLS WHO HAD TAKEN
THE EXTENSION COURSE IN HIGH SCHOOL

	Number
Positions held by seventy-five girls in spring of 1928:	
Clerical worker.....	40
Non-clerical worker in department store.....	12
Factory worker.....	6
Salesgirl in store after an attempt at clerical work.....	4
Telephone operator.....	2
Work in dressmaking establishment after an attempt at clerical work.....	1
Never employed.....	10
Total.....	75
Clerical positions held by forty girls from the date of leaving school to spring of 1928:	
Mailing clerk, dispatch clerk, order clerk, shipping clerk, or stock clerk.....	20
General clerical worker.....	16
Billing clerk, cashier, or pay-roll clerk using billing or add- ing machine.....	10
Billing clerk or cashier not using billing or adding machine.....	9
Typist.....	7
Filing clerk.....	4
Addressograph operator, filing clerk, and switchboard operator.....	1
Bank teller.....	1
Bookkeeper.....	1
General clerical worker doing some stenography.....	1
Stenographer.....	1
Total.....	71
Non-clerical positions in department stores held by twelve girls:	
Inspector and cashier.....	5
Stock girl.....	3
Salesgirl.....	3
Checker.....	1
Worker in receiving department.....	1
Total.....	13

TABLE I—*Continued*

Factory positions held by six girls:		Number
Packing.....		3
Machine operating.....		3
Making flowers.....		1
Total.....		7
Positions held in businesses of various types:		
Retail store, including department store and specialty shop	37	
Manufacturer.....	21	
Real-estate company.....	7	
Telephone or telegraph company.....	7	
Publisher and printer.....	4	
Wholesale store.....	4	
Bank.....	3	
Five- and ten-cent store.....	2	
Insurance agency.....	2	
Lunchroom.....	2	
Mail-order company.....	2	
Advertising company.....	1	
Architectural-record company.....	1	
Automobile agency.....	1	
Bricklaying and masonry company.....	1	
Coal yard.....	1	
Dressmaking establishment.....	1	
Drug store.....	1	
Financial house.....	1	
Furrier.....	1	
Magazine distributor.....	1	
Mimeographing company.....	1	
Public stenographer.....	1	
Typewriter company.....	1	
Total.....	104	

machine; had operated the switchboard; and, in the absence of the stenographer, had taken dictation. She had mastered shorthand by dint of persistence, hard work, and a fair memory through three years' regular attendance in the evening school. Her intelligence quotient was 83 and her high-school record one of failure; nevertheless, she had attained a real measure of success. Evidently, fine personal characteristics had made up for limited intelligence.

Pupil 2 had had three positions: first as a file clerk in an insurance office, where she received a salary of \$15; second, as a typist and clerk in the purchasing department of a salt company, where her salary was advanced from \$15 to \$20; third, as a typist and operator of a private switchboard in an office, where she received a salary of \$18. She is an American girl of fine appearance and manner.

Pupil 3 had had two positions. She first worked as a billing clerk and also did typing and bookkeeping. In this position her salary was advanced from \$12 to \$18. In her second position, as a bookkeeper and comptometer operator, she received a beginning salary

TABLE II
WEEKLY SALARIES RECEIVED BY SEVENTY-FIVE GIRLS
AFTER TAKING THE EXTENSION COURSE

	Salary
Clerical work:	
Beginning.....	\$ 7.00 to \$20.00
Final.....	7.00 to 30.00
Non-clerical work in department store:	
Beginning.....	8.00 to 13.00
Final.....	8.00 to 13.00
Factory work:	
Beginning.....	10.00 to 16.50*
Final.....	11.00 to 20.00*
Telephone operating.....	12.00 to 15.00†

* The higher wages in factories were paid for piecework.

† The higher amount was paid to a long-distance operator.

of \$12, which was advanced to \$16. She was nineteen at "graduation," and her intelligence quotient was 75. Her appearance was good.

Pupil 4 had had six positions, four of which were temporary. All paid \$15 or more, the first paying \$30 for overtime typing during a political campaign. Her intelligence quotient was 66.

Pupil 5 was a stenographer. She had attended evening school since "graduation" and had completed a stenographic course. When interviewed, she was taking bookkeeping. Her intelligence quotient was 85.

When this study was started, the hope was that it would show that the group as a whole had been able to enter a field of work

which would have been closed to them if they had not taken the extension course. However, the evidence is not convincing, and figures for a similar group without extension training are lacking. The two significant points brought out by this study are that there are places in office work for girls with low intelligence scores and that advancement is secured to an unexpected degree in cases where other desirable qualities are present, such as determination, energy, and charm of appearance and manner. Of course, the discovery of these facts is not new. Everyone knows them, but they are easily forgotten by school people in the desire for better marks.

John M. Brewer, after investigating the causes for discharge of a large group of workers, concluded, "The chief causes of failure are not lack of skill or lack of technical knowledge: over 62 per cent of the cases were discharges through failure in human relations and character qualities."¹ If success in holding a position is largely dependent on qualities of character and personality, it would seem that the school is justified in keeping the pupils with low intelligence quotients in school for an additional year as an isolated group, giving them some technical skill, and—still more important—making a special effort to develop those important qualities of personality and character which are vital for success in human relations. That these pupils cannot assimilate the usual high-school course with its goal of academic achievement has been shown again and again. Then why not shift the emphasis in an attempt to meet the need of the business world for the routine worker who can get along with his fellows? This shift has been made in the extension course in the South Philadelphia High School for Girls, and the verdict of the business world, as revealed in this study, seems to be that the course is worth while.

¹ John M. Brewer, "The Recent Progress and Problems of Vocational Guidance," *School and Society*, XXIII (January 16, 1926), 68.

RECENT DEVELOPMENTS IN GERMAN SECONDARY EDUCATION. II

HAROLD H. PUNKE
University of Illinois

The first article of this series¹ directed attention primarily to the German method of selecting pupils for entrance into the secondary schools. The evidence given indicated (1) that from the American point of view a relatively small proportion of German youth continue their education in the secondary schools and (2) that children of poor families are not so likely to be selected for transfer to the secondary schools as are children of well-to-do families. In other words, the economic factor apparently plays a rôle in selection. In the present article detailed attention will be given to the various types of secondary schools in Germany and to the relation between these types. Primary consideration will be given to the secondary schools of Hamburg, a state which is considered to have one of the most progressive school systems in Germany. Occasional references will be made to schools in other parts of the republic.

Perhaps the clearest way to secure an understanding of the school system of Hamburg is by a study of Figure 1. The figure shows clearly the relation of the elementary school (*Volksschule*, including the *Grundschule*) to the secondary school. The preceding article explained that the selection of pupils for the secondary schools takes place at the end of the fourth year of elementary education, that is, at the completion of the *Grundschule*. The groupings shown in Figure 1 indicate that certain types of secondary schools are more closely related to one another than are other types and also show the branching-off of the *Aufbauschule* and of the *Oberbau* from the *Volksschule*, which accommodates the main stream of pupils remaining after the end of the four-year period in the *Grundschule*. Further

¹ Harold H. Punke, "Recent Developments in German Secondary Education. I," *School Review*, XXXVIII (October, 1930), 576-84.

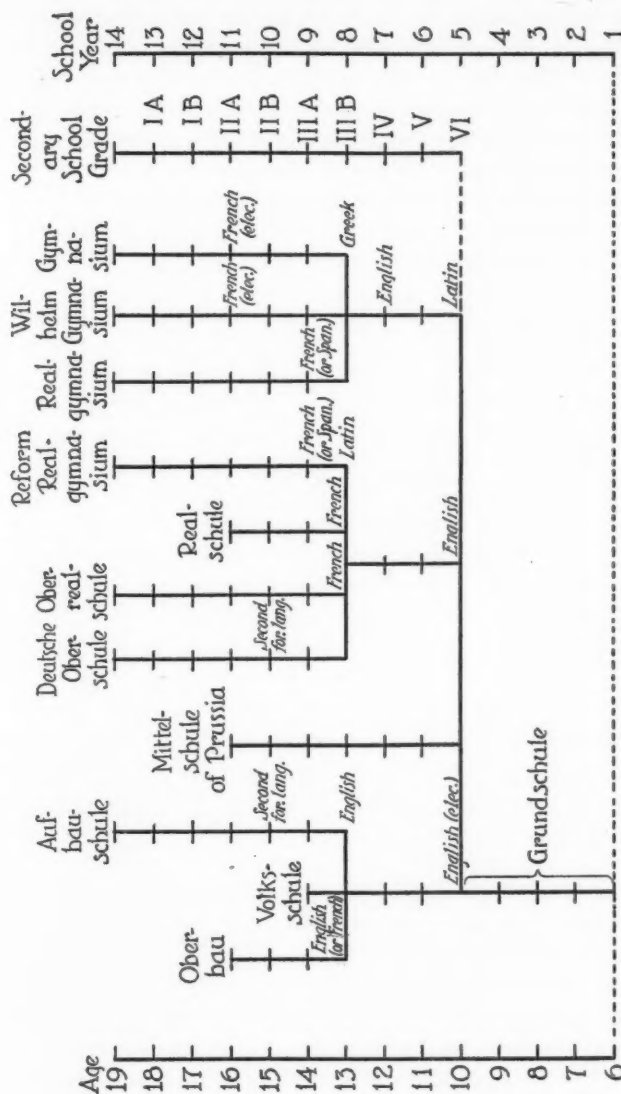


FIG. 1.—Structure of the school system of Hamburg. (The Mittelschule of Prussia has been indicated so that certain comparisons may be made. This figure is adapted from material in *Übericht über das Ausleseverfahren sowie den Aufbau und die Ziele der staatlichen höheren Schulen Hamburgs*. Hamburg: Oberschulbehörde, October 27, 1927.)

reference will be made to Figure 1 in connection with a more detailed consideration of the main types of secondary schools represented.

The oldest type of secondary school in Germany at the present time is, of course, the *Gymnasium*. In this school the intellectual life of antiquity is stressed, and, accordingly, the study of Latin and of Greek occupies the most prominent place in the curriculum. Considerable attention is, however, devoted to mathematics. Table V shows the subjects and the number of class hours given to each subject in the curriculum of the *Gymnasium*.

TABLE V
SUBJECTS AND NUMBER OF CLASS HOURS GIVEN TO EACH
IN THE CURRICULUM OF THE GYMNASIUM*

SUBJECT	NUMBER OF CLASS HOURS PER WEEK									TOTAL NUMBER OF CLASS HOURS
	School Grade VI	School Grade V	School Grade IV	School Grade III B	School Grade III A	School Grade II B	School Grade II A	School Grade I B	School Grade I A	
Drawing and hand- work.....	2	2	2	2	2					10
English.....			4	3	3	2	2	2	2	18
Geography.....	2	2	2	1	1	1	1	1	1	12
German.....	4	4	3	3	3	4	4	4	4	33
Greek.....				6	6	6	6	6	6	36
History.....	1	1	2	2	2	2	3	3	3	19
Latin.....	8	8	7	6	7	6	6	6	6	60
Mathematics.....	4	4	4	3	3	4	4	4	4	34
Music.....	2	2	2	2	1	1	1	1	1	13
Natural science..	2	2	2	2	2	3	3	3	3	22
Physical training..	3	3	3	3	3	3	3	3	3	27
Religion.....	2	2	2	2	2	2	2	2	2	18
Total.....	30	30	33	35	35	34	35	35	35	302

* Adapted from material in *Übersicht über das Ausleseverfahren sowie den Aufbau und die Ziele der staatlichen höheren Schulen Hamburgs*. Hamburg: Oberschulbehörde, October 27, 1927.

A German course is given in the *Wilhelm Gymnasium*, which makes an attempt to retain the humanistic aspects of the *Gymnasium* while giving greater emphasis to present-day German culture than is given in the *Gymnasium*. Religion, German, and history do not appear as separate subjects in this German course, but in their place appears a subject called "German culture" (*Deutschkunde*), to which a total of eighty-four weekly class hours is devoted during the nine years of the course. Other differences between the course in the *Wilhelm Gymnasium* and the course in the humanistic *Gymnasium*, as shown by the total number of weekly class hours devoted to different subjects, are the absence of Greek in the *Wilhelm Gymnasium*; the reduction of Latin to forty-four hours; and the addition of six hours

of geography, eight hours of drawing and handwork, five of music, ten of English, and four of natural science.

Although considerably younger than the humanistic *Gymnasium* as a type of German secondary school, the *Realschule* too has been in existence for some time. The increasing trade and commercial interests of Germany in the eighteenth century demanded greater emphasis on mathematics, natural science, and modern languages than was given in the *Gymnasium*. To meet this neglected demand, the *Realschule* came into existence with the establishment in 1747 of the first successful school of this type by Hecker of Berlin.¹ For more than a century interest of the kind fostered by the six-year *Realschule* had a slow growth and was weakened by numerous wars. However, the interest finally became widespread and in 1882 resulted in the establishment of the *Oberrealschule*, a nine-year secondary school of the same general character as the *Realschule*.² At present the *Realschule* and the *Oberrealschule* foster the same general lines of interest, a greater emphasis being given to theory in the nine-year institution, which leads to the university, than in the six-year institution. Figure 1 shows that the *Realschule* and the *Oberrealschule* belong to the group of secondary schools in which the study of English rather than the study of Latin is begun in the lowest grade of the secondary school. The curriculum of a present-day *Oberrealschule* is shown in Table VI.

The *Gymnasium* and the *Realschule* bore the respective stamps of humanistic and realistic extremes. Hence, it gradually became apparent that the two institutions were inadequate to meet the educational needs of Germany. It was felt that people in influential positions of state or private enterprise needed an understanding of the nature of society and that this understanding could best be secured through a study of history. Because of the importance of Latin in the cultural development of Middle Europe until the end of the seventeenth century, Latin was considered the key to history; Greek was considered of no particular importance in this connection. Various attempts were made during the last two decades of the nine-

¹ Paul Barth, *Die Geschichte der Erziehung in soziologischer und geistes-geschichtlicher Beleuchtung*, p. 505. Leipzig: O. R. Reisland, 1925.

² *Ibid.*, p. 689.

teenth century to reform the *Gymnasium* in accordance with the needs indicated, and ultimately the *Realgymnasium* came into existence as a compromise between the existing humanistic and realistic schools.¹ At first the new institution leaned somewhat toward the *Gymnasium* but laid emphasis on Latin and ancient history rather than on Greek. Later, the study of modern languages came to oc-

TABLE VI
SUBJECTS AND NUMBER OF CLASS HOURS GIVEN TO EACH IN
THE CURRICULUM OF THE "OBERREALSCHULE"***

SUBJECT	NUMBER OF CLASS HOURS PER WEEK									TOTAL NUMBER OF CLASS HOURS	
	School Grade VI	School Grade V	School Grade IV	School Grade III B	School Grade III A	School Grade II B	School Grade II A	School Grade I B	School Grade I A	Boys	Girls
Drawing and handwork...	2†	3†	4	2†	2†	2†	2	2	2	21	27
First foreign language†...	6†	6†	6†	4	4†	4†	4†	4†	4†	42	34
Geography...	2	2	2	2	2	2	†	2	†	15	18
German.....	6	6	5	4	4	4	3	3†	3†	38	40
History.....	†	†	2†	2	2	2†	3	3	3	17	21
Mathematics...	5†	4	5†	5†	5†	5†	5	5	5	44	39
Music.....	2	2	2	2	1†	1†	1	1	1	13	15
Natural science	2	2	2	2	6	7†	9†	8†	9†	47	38
Physical train- ing.....	3	3	3	3	3	3	3	3	3	27	27
Religion.....	2	2	2	2	2	2	2	2	2	18	18
Second foreign language§...	.....	.....	.....	6†	4	4†	4	3	3	24	22
Total:											
Boys.....	30	30	33	34	35	36	36	36	36	306	.....
Girls.....	31	31	32	33	35	35	34	34	34	.....	299

* Adapted from material in *Übersicht über das Ausleseverfahren sowie den Aufbau und die Ziele der staatlichen höheren Schulen Hamburgs*. Hamburg: Oberschulbehörde, October 27, 1927.

† The time distribution is given only for the boys' *Oberrealschule*. A dagger indicates that in the girls' *Oberrealschule* the number of hours per week for the subject and grade concerned differs from the number for boys. The general nature of this difference can be seen from the totals at the right and at the bottom of the table, which are given for *Oberrealschulen* for both boys and girls.

‡ Usually English.

§ Usually French.

cupy a place of importance, somewhat similar to the place occupied by the study of modern languages in the *Oberrealschule*. The curriculum of a present-day *Realgymnasium* is shown in Table VII.

Figure 1 shows that there is a *Reform Realgymnasium* in Hamburg. The difference between the curriculum in this type of school and that indicated for boys in the *Realgymnasium* (Table VII) is that Latin and English change places; that is, in the *Reform Real-*

¹ Paul Barth, *op. cit.*, p. 690.

gymnasium English (or, in some cases, French) is begun in the lowest, or sixth, grade of the secondary school and continues throughout the course, a total of thirty-eight weekly class hours, whereas Latin is begun three years later and occupies a total of twenty-eight weekly class hours during the remainder of the course. French or Spanish (or English in cases where French instead of Eng-

TABLE VII
SUBJECTS AND NUMBER OF CLASS HOURS GIVEN TO EACH IN
THE CURRICULUM OF THE "REALGYMNASIUM"*

SUBJECT	NUMBER OF CLASS HOURS PER WEEK									TOTAL NUMBER OF CLASS HOURS	
	School Grade VI	School Grade V	School Grade IV	School Grade III B	School Grade III A	School Grade II B	School Grade II A	School Grade I B	School Grade I A		
										Boys	Girls
Drawing and handwork...	3†	3†	2†	2†	2	2	2	2	2	20	25
English†.....	†	†	4†	4	4†	4†	4†	4†	4†	28	34
French or Spanish‡.....					4	4	4	3†	4	19	20
Geography....	2	2	2	2	2	2	1†	1	1	15	16
German.....	5†	5†	4†	4	3	4†	4†	4†	4†	37	36
History.....	1	2†	2†	2	2	2	3†	3	3	20	19
Latin.....	6†	6†	6†	5†	3†	3†	3†	3†	3†	38	30
Mathematics....	4	4	4	4	4†	4†	4	4	4	36	34
Music.....	2	2	2	2	1†	1	1	1	1	13	14
Natural science	2	2	2	2	4†	5	5†	6†	5	33	30
Physical train- ing.....	3	3	3	3	3	3	3	3	3	27	27
Religion.....	2	2	2	2	2	2	2	2	2	18	18
Total:											
Boys.....	30	31	33	32	34	36	36	36	36	304	.....
Girls.....	31	31	32	34	35	35	35	35	35	.....	303

* Adapted from material in *Übersicht über das Ausleseverfahren sowie den Aufbau und die Ziele der staatlichen höheren Schulen Hamburgs*. Hamburg: Oberschulbehörde, October 27, 1927.

† The time distribution is given only for the boys' *Realgymnasium*. A dagger indicates that in the girls' *Realgymnasium* the number of hours per week for the subject and grade concerned differs from the number for boys. The general nature of this difference can be seen from the totals at the right and at the bottom of the table, which are given for the *Realgymnasium* for both boys and girls.

‡ The curriculum for girls lists this item as "First foreign language."

§ The curriculum for girls lists this item as "Second foreign language."

lish is given thirty-eight hours) occupies the same amount of time in schools of both types.

The three main types of German secondary schools already mentioned—*Gymnasium*, *Oberrealschule*, and *Realgymnasium*—have been in existence for some time and accordingly need little explanation. Since the late war certain other types, which promise to be of considerable significance, have come into existence. The *Deutsche Oberschule*, a nine-year secondary school, is one of these types. The

Deutsche Oberschule "makes German culture and civilization the core of instruction and strives to produce Germans with a pronounced sense of the present and of reality but in whom an understanding of historical becoming is not lacking."¹

The *Lichtwarkschule* in Hamburg is a *Deutsche Oberschule* which is somewhat more radical in its changes from the earlier types of secondary schools than are most *Deutsche Oberschulen*. Coeducation is one of its interesting features—an innovation in a country where boys and girls uniformly receive secondary education in separate institutions except in cases in which a few girls are admitted to boys' schools.² Social science is made the basis of the curriculum, and the emphasis placed on the factual content of separate subjects is less than in the earlier types of secondary schools. The greater attention given to co-ordinating fields of culture and human activity is reflected in the disappearance from the curriculum of religion, history, and German as separate subjects, as they are commonly listed in the curriculums of the secondary schools. In their place is a study of civilization (*Kulturkunde*), to which more than one-fourth of the total number of weekly class hours of the course are devoted. In this curriculum the child is more a participant than a recipient, and the field of instructional interest reaches out in widening circles from the local environment. Numerous field trips are made to different parts of Germany, and an upper class often goes to England. The aim of a trip to England is not alone to aid the pupils in learning the English language, the study of which receives a great deal of attention in the *Lichtwarkschule*, nor to aid in fixing geographical locations in the minds of the children, but also to aid in giving the children a general understanding of the Englishman and his culture. *Kulturkunde* attempts to give the child a sense of unity in present-day culture—a sense which is often missed in subject-teaching. Referring to the work of the *Lichtwarkschule* in this connection, Fritz Neumann writes:

In history whenever and wherever there has been culture, it has oriented itself in accordance with given forms only when those forms were still living symbols of an ultimate unity of purpose or activity. If they no longer carry in them

¹ W. Pätzold, *Das Dresdner Schulwesen*, p. 79. Dresden: C. Heinrich, 1924.

² Thomas Alexander and Beryl Parker, *The New Education in the German Republic*, p. 156. New York: John Day Co., 1929.

this ultimacy of activity, it becomes the part of culture critically and revolutionally to turn against them. Therefore, culture can in its nature, which is its activity, never be grasped except in the present. In actuality the transcendental activity is in the present, and here alone—and not incidentally—is the only possible pedagogical point of view because youth immediately reflects this actuality. The crisis is active in his existence; it is his fate. He discovers the direction in which he meets his own limitations, in which crises do not occur to him as individual subjective affairs but as the common fate of mankind at a historical moment. So education must focus upon a responsible cultural style of living of the future, which is to come out of the problematic situation of the

TABLE VIII
SUBJECTS AND NUMBER OF CLASS HOURS GIVEN TO EACH IN THE
CURRICULUM OF A "DEUTSCHE OBERSCHULE"*

SUBJECT	NUMBER OF CLASS HOURS PER WEEK									TOTAL NUM- BER OF CLASS HOURS
	School Grade VI	School Grade V	School Grade IV	School Grade III B	School Grade III A	School Grade II B	School Grade II A	School Grade I B	School Grade I A	
Biology and chem- istry.....	2	2	2	2	2	2	3	3	3	21
Drawing and hand- work.....	3	3	2	2	2	2	2	2	2	20
English.....	6	6	6	5	5	4	4	4	4	44
Geography.....	2	2	2	2	2	2	2	2	2	18
Mathematics.....	4	4	4	4	4	4	4	4	4	36
Music.....	2	2	2	2	2	2	2	2	2	18
Physical training.....	6	6	6	6	6	6	6	6	6	54
Physics.....				3	3	3	3	3	3	18
Second foreign lan- guage†.....						4	3	3	3	13
Study of civiliza- tion (<i>Kultur- kunde</i>).....	8	9	10	10	10	10	10	10	10	87
Total.....	33	34	34	36	36	39	39	39	39	320

* Adapted from material in *Übersicht über das Ausleseverfahren sowie den Aufbau und die Ziele der staatlichen höheren Schulen Hamburgs*. Hamburg: Oberschulbehörde, October 27, 1927. The curriculum of the particular *Deutsche Oberschule* given is that of the *Lichtwarkschule*.

† The choice is between French and Latin.

present. Any study of cultural history can serve this aim in only one of two ways: either in that it gives a more acute and exact understanding of the present situation, as for example the history of middle-class European society, or in that it makes the more philosophic problems and nature of culture in general a matter for analysis, as, for example, medieval, antique, or primitive Asiatic culture. Through this principle of actuality does *Kulturkunde* become a real pedagogical principle.¹

Some understanding of the working-out of the theory set forth in this quotation can be secured from an examination of the curriculum given in Table VIII.

¹ Fritz Neumann, *Die Lichtwarkschule in Hamburg: Beiträge zur Grundlegung und Berichte*, 1928, pp. 12-13. Hamburg: Martin Riegel, 1929.

In order that a comparative study may be made of the main differences in the curriculums of the schools of the four types considered thus far, the total number of weekly class hours devoted to each subject in the schools of each type are given in Table IX. This table indicates that the number of weekly class hours given to German, history, and religion remain practically uniform in the schools of the

TABLE IX
TOTAL NUMBER OF WEEKLY CLASS HOURS DEVOTED TO DIFFERENT SUBJECTS
IN SECONDARY SCHOOLS OF FOUR TYPES

SUBJECT	OBERREALSCHULE		REALGYMNASIUM		GYMNASIUM	DEUTSCHE OBER-SCHULE
	Boys	Girls	Boys	Girls		
Drawing and handwork....	21	27	20	25	10	20
English*.....	42	34	28	34	18	44
French or Spanish†.....	24	22	19	20	.....	13
Geography.....	15	18	15	16	12	18
German.....	38	40	37	36	33	.....
Greek.....	.....	.....	.....	.....	36	.....
History.....	17	21	20	19	19	.....
Latin.....	.....	.....	38	30	60	.....
Mathematics.....	44	39	36	34	34	36
Music.....	13	15	13	14	13	18
Natural science.....	47	38	33	30	22	39†
Physical training.....	27	27	27	27	27	54
Religion.....	18	18	18	18	18	.....
Study of civilization (<i>Kulturkunde</i>).....	.....	.....	.....	.....	.....	87
Total.....	306	299	304	303	302	329

* In the curriculum for the *Oberrealschule* given in Table VI this item is listed as "First foreign language."¹

† In the curriculum for the *Oberrealschule* given in Table VI this item is listed as "Second foreign language"; in the curriculum for the *Deutsche Oberschule* given in Table VIII the item is listed as "Second foreign language," the choice being between French and Latin.

‡ Physics and biology and chemistry appearing in the curriculum for the *Deutsche Oberschule* given in Table VIII are totaled to give the number used here.

first three types listed—*Oberrealschule*, *Realgymnasium*, and *Gymnasium*. Some variations occur in geography, which receives on the whole less attention than religion but somewhat more than music. In the case of mathematics rather noteworthy differences appear between the *Oberrealschule* and the *Gymnasium*; the difference in the nature of the mathematics taught, since one school stresses practical application and the other abstract concepts, is as great as is the difference in the amount of time devoted to the subject. The most fundamental differences in the curriculums of the secondary schools of

the first three types listed relate to natural science and to languages. Twice as much time is devoted to science in the *Oberrealschule*, which offers a realistic education, as in the *Gymnasium*, which offers a humanistic course. Similarly, modern languages are stressed in the realistic school, whereas ancient languages are stressed in the humanistic school. The amount of time devoted to English in the *Oberrealschule* is more than twice the amount of time devoted to this subject in the *Gymnasium*, and a second modern language occupies a prominent place in the realistic course but is missing entirely in the requirements of the humanistic program. On the other hand, Latin and Greek receive no attention in the *Oberrealschule* but occupy places of first and second importance, respectively, in the *Gymnasium*. Clearly the two types of schools stand at educational extremes, as was suggested earlier in this article. The *Realgymnasium*, a compromise institution, stands between the two extremes with regard to these controversial aspects of the curriculum.

General reference has been made to the importance of social science in the curriculum of the *Deutsche Oberschule*. Table IX indicates that this school devotes more time to this general field (*Kulturkunde*) than is devoted to the somewhat corresponding subjects (religion, German, and history) in any of the other schools listed. This social-science combination indicates a responsiveness to modern cultural needs, and a similar responsiveness to the needs of a seaport city is indicated in the attention given to natural science and to the English language. Responsiveness to present-day German needs is likewise shown in the greater amount of time given to physical training in this school than is given in the other secondary schools—a training needed by German youth recovering from neglect caused by war and reconstruction.

Two aspects of the curriculums presented in Table IX which will be of interest to Americans may be mentioned. One is the place occupied by religion in state schools of the different types. The difference between German and American practice in this respect does not mean that Germans, apart from their schools, are either more or less religious than Americans; it simply means that in their state schools they take an attitude toward the problem of religious training somewhat different from that of Americans. The other comment

refers to the study of music, which is given attention in the schools of each type listed in the table. This attention reflects the emphasis placed on music in German culture—an emphasis which is similarly reflected in the teaching of music in the elementary schools.

A matter of further interest with regard to the schools of the four types compared relates to the possibility of transferring from school to school. Figure 1 suggests the facility of transfer and the direction in which it may be made. The schools of the three types grouped together on the right of the figure—*Realgymnasium*, *Wilhelm Gymnasium*, and *Gymnasium*—if each slight variant may be called a separate type, pursue the same course of instruction for the first three years. Likewise, the schools of the four types near the middle of the figure—*Deutsche Oberschule*, *Oberrealschule*, *Realschule*, and *Reform Realgymnasium*—pursue the same course for three years. During these first three years a pupil may transfer without difficulty from one type to another within its group. After the beginning of further curricular differentiation, however, transfer becomes increasingly difficult or impossible.

The *Aufbauschule* is a recent development in German secondary education, about which a great deal is being written. Unlike the four essentially different types of schools indicated in Table IX, the *Aufbauschule* represents a new type, not from the standpoint of curriculum content, but from the standpoint of organization. Figure 1 shows the point at which the children entering the *Aufbauschule* leave the *Volksschule*. It also shows that, unlike the other secondary schools leading to the university, the *Aufbauschule* is a six-year institution. In theory the curriculum of the *Aufbauschule* may be of the same character as that of any of the four types of secondary schools already described. In practice, however, the *Aufbauschule* has most often been organized along the same lines as the *Deutsche Oberschule*. *Aufbauschulen* organized along the lines of the *Oberrealschule* and of the *Realgymnasium* are relatively few in number, as compared to those organized along the lines of the *Deutsche Oberschule*. Hamburg has one *Aufbauschule* of the type of the *Deutsche Oberschule*. The curriculum of this school is given in Table X. A comparison of Table X and Table VIII shows that there is no great difference between the curriculum of this *Aufbauschule* and that of the *Deutsche Oberschule*.

Economic conditions in Germany have played an important part in the rapid spread of the *Aufbauschule*. At first, these schools were established primarily in rural districts too remote to have been already served by a secondary school. More recently, however, several such schools have been established in centers with large populations, where the psychological reason for their existence—to give late-

TABLE X
SUBJECTS AND NUMBER OF CLASS HOURS GIVEN TO EACH IN
THE CURRICULUM OF THE "AUFBAUSCHULE"*

SUBJECT	NUMBER OF CLASS HOURS PER WEEK						TOTAL NUMBER OF CLASS HOURS
	School Grade III B	School Grade III A	School Grade II B	School Grade II A	School Grade I B	School Grade I A	
Art.....	2	2	2	2	1	2	11
Biology.....	3	3	2				8
Chemistry.....				3	3	2	8
English.....	6	5	4	4	4	4	27
Geography.....	2	2	2	1	2	2	11
German.....	5	5	5	5	5	4	29
Handwork.....	2	2					4
History.....	3	3	3	3	3	3	18
Mathematics.....	4	4	4	4	4	4	24
Music.....	2	2	1	2	1	1	9
Physical training.....	3	3	3	3	3	3	18
Physics.....		1	3	2	3	3	12
Religion.....	2	2	2	1	2	2	11
Second foreign language.....			4	3	3	3	13
Total.....	34	34	35	33	34	33	203

* Adapted from material in *Übersicht über das Ausleseverfahren sowie den Aufbau und die Ziele der staatlichen höheren Schulen Hamburgs*. Hamburg: Oberschulbehörde, October 27, 1927.

maturing children an opportunity to secure a secondary education—has been more important than it has been in rural districts. The extent of the movement to establish *Aufbauschulen* may be statistically indicated. Lehmann states that Prussia has eighty-six such schools, of which sixty-nine are of the type of the *Deutsche Oberschule*. Saxony has eleven *Aufbauschulen*; Thuringia, eleven; Baden, three; Oldenburg, two; Brunswick, two; while Hamburg, Bremen, Anhalt, Lippe, and Mecklenburg-Schwerin each have one.¹

In some instances another type of institution has made its ap-

¹ Reinhold Lehmann, "Germany," *Educational Yearbook of the International Institute of Teachers College*, 1928, p. 121. Edited by I. L. Kandel. New York: Teachers College, Columbia University, 1929.

pearance, which has grown out of the elementary school and which is called the *Oberbau* of the *Volksschule*. Figure 1 shows that pupils who enter the *Oberbau* leave the *Volksschule* proper at the same time as do those entering the *Aufbauschule*. The three-year course offered by the *Oberbau* may be considered an expanded and prolonged *Volksschule* course, which brings the pupil to about the same educational level as does the course of the *Mittelschule* common in Prussia. In some cases pupils have transferred from the *Oberbau* to one of the secondary schools.

In general there seems to have been a close relation between social movements in Germany and the establishment of new types of secondary schools. Such a relation can be seen in the first breaking-away from the humanistic *Gymnasium*, which resulted in the establishment of the *Realschule*. It can again be seen in the establishment of the compromise institution, the *Realgymnasium*. Since the late war perhaps more smoldering embers of reform in secondary education have been fanned into flame than ever before, and more change has taken place. The basis of admittance into secondary schools has changed. Change has also occurred in the possibility of transferring from one type of secondary school to another. Moreover, new types of institutions offering education at the secondary level have become significant. The *Aufbauschule* offers an interesting change in school organization at the secondary level, and the *Oberbau* reduces somewhat the "blind-alley" aspects of the *Volksschule*, leading upward as it does in the general direction of the secondary schools. The movement for establishing the *Deutsche Oberschule*, a type of school stressing German life and culture of the present day, is particularly interesting as a movement for the critical examination of a culture which showed weakness in struggle and for the stimulation of that culture to a new growth.

In spite of these changes, which at first glance appear extensive, the work of the secondary schools remains fixed within rather narrow limits. The schools of the new types must maintain standards equivalent to those of the previously existing schools. For a time it was thought that the *Deutsche Oberschule* did not offer training adequate to permit the entrance of its graduates into the university, and in Bavaria this view still prevails with regard to some lines of university

study. Reference was made in the first of these articles to the small percentage of pupils passing from the elementary school to a school of secondary level, as well as to the "conservative" gulf between the theoretical basis of the selection of pupils for the secondary school and the practical working-out of the selective process. Comparing the changes made in the elementary schools with those made in secondary schools, Alexander and Parker write as follows concerning the relatively small extent of the changes made in the schools of secondary level:

Elementary-school reforms have the support of the proletariat and the radicals of all classes, but the secondary schools are chiefly in the hands of moderates or conservatives, who are more interested in preserving the existing order than in modifying it in any extreme fashion. Most of the people of the middle and upper classes feel that enough harm has been done already by innovations that have permeated the whole school system. They may welcome the more human atmosphere that now pervades secondary schools, but they are unwilling to admit further changes of serious consequence to matter or method, lest the scholastic standards that have been their pride in the past should sink. They are not yet so thoroughly democratic as to welcome the intrusion of the lower classes in the secondary schools and universities, and they are not disposed to reshape Germany's higher schools to the needs of the working people.¹

¹ Thomas Alexander and Beryl Parker, *op. cit.*, p. 281.

AN EXPERIMENTAL STUDY OF THE DAILY RECITATION VERSUS THE UNIT PLAN

ARTHUR L. SHELTON

Queen Anne High School, Seattle, Washington

This article reports the measurement and comparison of the progress made during the autumn semester of the school year 1928-29 by two groups of high-school pupils taught by different methods—the unit method and the method employing the daily recitation.

Four classes in general science were selected at the Queen Anne High School in Seattle, Washington, which at the time had an enrolment of approximately sixteen hundred pupils. Two classes, meeting during the first and fourth periods, were taught by the unit method and in this study are called Group A. Two classes, meeting during the second and third periods, were taught by the method employing the daily assignment and recitation and in this study are called Group B. All four classes were taught by the same teacher and used the same textbooks and equipment. As far as possible all factors were the same except that of method. The classes were not specially selected but were made up of regularly enrolled Freshmen and of Sophomores in their first half-year.

One textbook, *Elements of General Science* by Caldwell and Eikenberry,¹ was given to each pupil. *Everyday Problems in Science* by Pieper and Beauchamp² was used as a supplementary textbook and was available to pupils in the classroom, although it could not be taken from the room. The latter book is organized in units according to the Morrison plan. It was necessary to limit the units used in this investigation in order to include only materials found in both books and materials which were covered by standardized tests that were available for the different units. Accordingly, the units of

¹ Otis William Caldwell and William Lewis Eikenberry, *Elements of General Science*. Boston: Ginn & Co., 1918 (revised).

² Charles John Pieper and Wilbur Lee Beauchamp, *Everyday Problems in Science*. Chicago: Scott, Foresman & Co., 1925.

weather, water supply, work, and engines were chosen to satisfy these requirements.

Progress was measured by giving a standardized test at the beginning of the semester and a different form of the same test at the close of the semester. A test was given when each new unit of study was taken up and another form of the test when the unit had been completed. Form S-2 of the Dvorak General Science Scale was used at the beginning of the semester, and Form T-2 of the same scale was used at the close of the semester. The gain in each pupil's rating was taken as a measure of his progress for the semester. The tests used for the different units were the Pieper-Beauchamp Tests on Everyday Problems in Science, which were written to accompany the authors' book and which consist of two sets of questions for each unit, one set testing for factual knowledge and the other set testing for ideas gained. An accurate record of the errors made in each test was kept, and the difference between the number of errors made in the test given at the beginning of a unit and the number made in the test given at the close of the unit constituted the measure of progress.

After a method of procedure had been established, it was necessary to develop a technique of instruction that would meet the requirements of the two methods. The technique employed in the unit method was that given in Pieper and Beauchamp's *Teacher's Guidebook for "Everyday Problems in Science,"*¹ which gives in a practical way the application of the Morrison method to general science and in which a more detailed account of the procedure used may be found. Briefly, the instruction was divided into five phases: (1) exploration, (2) preview, (3) assimilation, (4) organization, and (5) recitation.

In the group using daily assignments and recitations, the books and materials employed were, of course, the same as in the group using the unit method. The time was budgeted so that both groups spent the same amount of time on each part of the subject matter. The technique employed in instructing Group B was that with which everyone is more or less familiar. Each day the assignment for the

¹ Charles John Pieper and Wilbur Lee Beauchamp, *Teacher's Guidebook for "Everyday Problems in Science,"* p. 321. Chicago: Scott, Foresman & Co., 1927.

following day was written on the board and was carefully explained so that all pupils should definitely understand what was expected of them. Usually the assignment of the lesson took from five to ten minutes. About thirty to thirty-five minutes of the sixty-minute period were used for questioning the pupils on the preceding assignment or for making demonstrations with regard to the subject under discussion. The pupils spent the remainder of the period, twenty or twenty-five minutes, in supervised study.

TABLE I

PROGRESS OF PUPILS IN GROUPS A AND B AS SHOWN BY THE DVORAK GENERAL SCIENCE SCALE ON THE SEMESTER'S WORK AND BY THE TESTS OF FACTUAL KNOWLEDGE AND IDEAS GAINED IN STUDY OF EACH UNIT

	DVORAK SCALE	FACTUAL KNOWLEDGE			IDEAS GAINED			TOTAL
		Weath- er	Water Supply	Work	Weath- er	Water Supply	Engines	
Number of pupils in Group A whose progress exceeded that of matched partners.....	20	25	27	26	18	25	22	163
Number of pupils in Group B whose progress exceeded that of matched partners.....	23	16	16	19	28	21	23	146
Number of pupils whose marks were missing.	1	0	1	0	0	0	0	2
Number of pupils in Groups A and B whose progress was the same as that of matched partners.....	4	7	4	3	2	2	3	25

In the report of the findings of this study only the summary tables will be given. To secure the data given in Table I, the pupils were matched according to age, sex, intelligence quotient, semester in school, and marks in school. The table shows that, in the progress for the semester as measured by the Dvorak scale, twenty pupils in Group A (unit group) gained over their matched partners in Group B (daily-recitation group). Twenty-three of the pupils in Group B made greater progress than their matched partners in Group A. This table shows a slight advantage in favor of the unit group, since there were seventeen more in Group A whose progress exceeded that of their partners than in Group B.

The question arises: How reliable are these results? To this question a satisfactory answer could not be given. Consequently, to secure the data given in Table II, the method of comparing the averages of two groups given by Henry E. Garrett¹ was used. Garrett's formula for finding the reliability of an obtained difference is as follows:

$$\text{Sigma difference} = \sqrt{(\text{sigma average } A)^2 + (\text{sigma average } B)^2}$$

"Sigma average A" is the standard error of the first obtained average, "sigma average B" is the standard error of the second obtained average, and "sigma difference" is the standard error of the difference between the two averages. Thus, in order to find the reliability of the difference between two averages, the reliability of the averages themselves must be known. These data were worked out, and a summary is given in Table II. Column 2 gives the average progress for each group for each test. Column 3 shows the difference of the average progress and the group that it favors. Column 4 gives the sigma average, or the standard error of the average, and Column 5 gives the sigma difference, or the standard error of the difference between the two averages. Column 6 is the result of dividing the difference in the average progress by the sigma difference. Column 7 shows the number of chances in one hundred that the true difference is greater than zero, and Column 8 the ratio in which the true difference of the two averages would be in favor of the group so found. Thus, on the Dvorak scale the chances are two to one that the true difference of the two averages would always be in favor of Group B.

Columns 3 and 8 of Table II give the important results of this investigation. Column 3 gives the average difference between the progress of the two groups, and Column 8 shows how reliable the difference is. It remains only to make a comparison of these figures to find which of the two methods of instruction gave the better results. It can hardly be said that the progress of either group during the semester was greater than that of the other. The difference of the averages is only 0.32, and the author of the tests states that this

¹ Henry E. Garrett, *Statistics in Psychology and Education*, pp. 118-35. New York: Longmans, Green & Co., 1926.

has practically no significance as the error of the tests is almost as high.

When the tests on the units are used as a basis for summarizing the results, it is found that in five of the six tests Group A (unit

TABLE II
RELIABILITY OF OBTAINED DIFFERENCES IN TESTS GIVEN GROUPS A AND B
FOUND BY USE OF GARRETT'S FORMULA

	Average Progress	Difference in Average Progress	Sigma Average	Sigma Difference	Difference in Progress Divided by Sigma Difference	Number of Chances in 100 That True Difference Is above Zero	Ratio of True Difference
Dvorak scale:							
Group A.....	3.64	.....	0.48	.....	.....	.....	.....
Group B.....	3.96	0.32	0.61	0.78	0.41	65	2:1
Weather—test of factual knowledge:							
Group A.....	9.20	1.04	0.79	0.95	1.09	86	6:1
Group B.....	8.16	.....	0.54	.....	.....	.....	.....
Weather—test of ideas gained:							
Group A.....	11.87	.....	1.16	.....	.....	.....	.....
Group B.....	15.89	4.02	1.24	1.69	2.38	99.2	99:1
Water supply—test of factual knowledge:							
Group A.....	13.98	2.23	0.79	1.01	2.21	98.6	98:1
Group B.....	11.75	.....	0.64	.....	.....	.....	.....
Water supply—test of ideas gained:							
Group A.....	8.60	1.81	1.10	1.54	1.18	87	6:1
Group B.....	6.79	.....	1.08	.....	.....	.....	.....
Work—test of factual knowledge:							
Group A.....	15.27	2.00	0.80	1.19	1.68	96	21:1
Group B.....	13.27	.....	0.66	.....	.....	.....	.....
Engines—test of ideas gained:							
Group A.....	7.66	0.02	0.67	0.92	0.022	58	13:1
Group B.....	7.64	.....	0.66	.....	.....	.....	.....

group) made a little greater progress than did Group B (daily-recitation group). The range of the difference in average progress in these five cases is from 0.02 to 2.23 errors. Again, when the possible error of the tests is considered, there would seem to be little justification for saying that one method was superior to the other.

However, certain tendencies appear. The unit plan was superior in teaching factual knowledge, while the daily-recitation method tended to be more effective in assisting the pupils to acquire ideas. In fact, the greatest difference in average progress in any of the tests is found in the test for ideas acquired in the study of the unit on weather, in which there is a difference of 4.02 in favor of Group B. Had like differences existed in the other two tests on ideas acquired, it could have been definitely decided that the daily-recitation method is better for the teaching of ideas. However, like differences did not exist, and it can only be said that, if the tests are an accurate measure of progress in the mastery of ideas, some units can be better taught by the unit method, while others can be better taught by the daily-recitation method. If the tests are not an accurate measure of progress in acquiring ideas, there is little difference in the efficiency of the two methods.

SUMMARY

1. Neither the unit method nor the daily-recitation method is distinctly superior to the other in teaching general science.
2. Neither method of teaching yielded better results consistently.
3. In so far as the limitations of this study reveal trends in the study of general science, factual knowledge may best be taught by the unit method, although the indication of superiority is slight.
4. The fact that the results of different tests favor both methods raises the question whether it is the method or the nature of the material which causes the differences in the results.
5. The greatest single difference between the results of the two methods is found in the superiority of the daily-recitation method in teaching ideas in the unit dealing with weather.

THE WORK OF A WOMAN ASSISTANT PRINCIPAL IN A SIX-YEAR HIGH SCHOOL

LUCY CHURCH CARR
Collinwood High School, Cleveland, Ohio

In a recent attempt to analyze the work of a woman assistant principal in her combined duties as administrator and dean of girls in a Cleveland six-year high school, the writer kept a careful record of the use of her time for a period of forty days during the months of October, November, and December, 1929. The average amount of time in a working day was 8.1 hours or 486 minutes. While definite plans were made day by day in an effort to organize the various activities for the next day's work, the actual procedure of each day was of necessity governed by the imperative demands and problems which rarely failed to arise. While any day might be selected at random as typical of a day's activities, the detailed records revealed that the types of work listed in Table I had been engaged in during one day.

A careful record of the activities of forty consecutive days similar to the day summarized in Table I brought out the fact that in this

TABLE I
ACTIVITIES OF A WOMAN ASSISTANT PRINCIPAL AND THE NUMBER OF MINUTES GIVEN TO EACH IN ONE DAY

Activity	Number of Minutes
Sorting of mail.....	10
Telephone call: dispensary nurse not coming.....	5
Making arrangements for care of dispensary.....	5
Conference with assistant principal with regard to gymnasium problems and work of pupil assistants.....	35
Conference with tenth-grade girl and grade adviser: outlining plans for a party.....	10
Desk work: outlining suggestions for gymnasium teachers for following semester.....	25
Interview with girl sent in with court notice.....	5

TABLE I—*Continued*

Activity	Number of Minutes
Interview with teacher concerning extension work.....	5
Investigation of problem case.....	10
Telephone call: complaint of a girl's behavior.....	10
Interview with girl who does too much outside work.....	10
Receiving report of school nurse in charge of girls' rest room	15
Further conference with assistant principal with regard to gymnasium plans.....	15
Conference with another assistant principal with regard to clubs and club sponsors.....	15
Conference with two gymnasium teachers.....	35
Conference with teacher concerning girl mentioned in tele- phone call.....	10
Lunch and rest.....	60
Conference with adviser of Grade IX B with regard to special programs.....	10
Conference with head of English department with regard to failures.....	5
Conference with school counselor with regard to the attend- ance of two girls.....	15
Conference with grade adviser with regard to failures in Grade X B.....	20
Telephone calls from sight-saving department and Women's Protective Association.....	10
Desk work.....	15
Enrolment of new pupil.....	6
Conference with adviser of Grade VIII B with regard to special programs for girls.....	15
Conference with adviser of Grade VII A with regard to prob- lem case: non-attendance of girl.....	20
Conference with adviser of Grade VIII A with regard to the absence of girl because of illness in the home.....	15
Conference with school counselor with regard to guidance problem.....	10
Telephone call from attendance department.....	5
Desk work: recording and filing cases.....	15
Conference with assistant principal with regard to plans for health contest.....	15
Meeting of Friendship Club.....	30
Total.....	486

TABLE II
ACTIVITIES OF A WOMAN ASSISTANT PRINCIPAL AND THE TOTAL AND AVERAGE
NUMBER OF MINUTES GIVEN TO EACH FOR FORTY DAYS

Activity	Total Number of Minutes	Average Number of Minutes Daily
Conferences with—		
Principal	765	19.1
Assistant principals	760	19.0
Supervisors	185	4.6
School counselor	370	9.3
Social workers	345	8.6
Members of parent-teachers' association	160	4.0
Guests	105	2.6
Conferences with teachers with regard to—		
Educational questions and school procedure	1,500	37.5
Discipline	1,160	29.0
Health of pupils	370	9.3
Social and moral guidance	120	3.0
Senior-class problems	190	4.8
Miscellaneous matters	440	11.0
Group conferences with pupils	425	10.6
Private conferences with pupils with regard to—		
Discipline	735	18.4
Educational guidance	240	6.0
Vocational guidance	140	3.5
Personal problems	230	5.8
Miscellaneous matters	270	6.8
Conferences with parents with regard to—		
Problems of discipline	350	8.8
Miscellaneous matters	120	3.0
Meetings in the school:		
General, staff, and special	535	13.4
Department	130	3.3
Meetings outside the school:		
Assistant principals in senior high schools	420	10.5
Assistant principals in junior high schools	300	7.5
Visits to—		
Classes	625	15.6
Assemblies	220	5.5
Club meetings	225	5.6
Other schools	480	12.0
Conferences with officers of Senior girls' honor society	245	6.1
Party plans	785	19.6
Routine activities:		
Health drive	430	10.8
Lunch	1,685	42.1
Telephone calls	190	4.8
Calls to dispensary for emergency cases in absence of nurses	65	1.6
Enrolment of new pupils	310	7.8
Notices to teachers	140	3.5
Instructions to secretary	65	1.6
Evaluation of credits	330	8.3
Mail and bulletins	255	6.4
Desk work	1,615	40.4
Miscellaneous requests	185	4.6
Unclassified	1,225	30.6
Total	19,440	486.0

particular school the work of the woman assistant principal is divided into the following classifications: individual and group conferences (about 46 per cent of each day); attending meetings; visits to classes, clubs, and assemblies; social work; and various routine activities made necessary by the planning and organizing of such school projects as moral guidance, promotion of health, and recreational opportunities. Table II shows the amount of time spent in various types of activity during forty days.

Since conferences occupied a large proportion of the time, the subjects of these conferences were summarized in order to analyze them. This summary showed that the subjects of the conferences with the various persons or groups and the desk work of the woman assistant principal can be classified as follows:

1. Conferences with principal with regard to—
 - a) School policies
 - b) Work of school counselor
 - c) Problem cases of a critical nature
 - d) Senior-class problems
 - e) Commencement plans
 - f) Plans of school health department
 - g) Good citizenship
 - h) Community-fund plans
 - i) Approval of projects
2. Conferences with assistant principals with regard to—
 - a) Work of pupil assistants
 - b) Procedure in gymnasium
 - c) Evaluation of clubs
 - d) Cases of discipline
 - e) Failing pupils
 - f) Evaluation of credits
 - g) System of marking
 - h) Suggestions for programs
3. Conferences with school counselor with regard to—
 - a) Attendance
 - b) Work permits
 - c) Pupils in financial need
 - d) Investigation of problem cases
4. Conferences with teachers with regard to—
 - a) Educational questions and school procedure
 - (1) Home-room problems
 - (2) Classroom problems

- (3) System of marking
- (4) Subject matter in special courses
- (5) Projects of student council
- (6) Pupil adjustments
- (7) Failing pupils
- (8) Pupils in need of special tests
- b) Discipline
 - (1) Absence and missing classes
 - (2) Obscene writing
 - (3) Social cases
 - (4) Special problem cases
 - (5) Stealing
- c) Miscellaneous matters
 - (1) Methods of moral guidance
 - (2) Pupils with personal problems
 - (3) Plans for reading circles
 - (4) Health cases
 - (5) Programs to be given
 - (6) Personal conferences
 - (7) Club problems
 - (8) Aid for poor families
 - (9) Social-committee members
- 5. Group conferences with pupils
 - a) Orientation classes and special talks
 - b) Problem classes
 - c) All home rooms in Grade VII B for the purpose of becoming acquainted with pupils entering junior high school
- 6. Private conferences with pupils with regard to—
 - a) Discipline
 - b) Educational guidance
 - (1) Questions as to different courses, majors, minors, plans for college, etc.
 - c) Personal problems
 - (1) Problems caused by home conditions
 - (2) Financial need
 - (3) Lack of adjustment in school
 - (4) Problems of health
 - (5) Discouragement
 - d) Miscellaneous matters
 - (1) Requests to be excused
 - (2) Reporting property stolen or lost
 - (3) Interviews with *Spotlight* reporters
 - (4) Lack of lunch money
 - (5) Complaints of other pupils
 - (6) Big-sister discussions

7. Conferences with parent-teachers' association with regard to—
 - a) Community dinner
 - b) Clothing for needy children
8. Conferences with social workers
 - a) Mental-hygiene clinics
 - b) Humane society
 - c) Women's Protective Association
 - d) Associated Charities
 - e) Juvenile court
 - f) Others
9. Desk work
 - a) Recording and filing of cases
 - b) Reports to teachers on cases of problem girls
 - c) Checking blanks to be sent to school headquarters when referring pupils for psychological study or court action
 - d) Making party schedules
 - e) Sorting classification cards of prospective pupils in Grade VII B for the purpose of preparing home-room lists
 - f) Looking over papers and notebooks brought in by teachers
 - g) Collecting material requested by visitors
 - h) Answering letters

It may be mentioned that the data are not entirely reliable for several reasons. (1) The amount of time spent with new pupils was small during these weeks. An account kept during the first month of a semester would show that a much larger amount of time had been given to activities dealing with the enrolment of new pupils. (2) The amount of time consumed by plans for parties was large. The fact that the weeks during which records were kept included both Thanksgiving and Christmas necessitated the giving of an unusual amount of time to this activity. (3) A city health contest increased materially the amount of time spent on organizing work. (4) The amount of time given to Senior-class problems was small. If the record had been kept during a period near the end of the semester, the amount of time given to these problems would have been larger. (5) The desk work would naturally consume a larger amount of time and be of a different character at the beginning or at the end of a semester.

The object and aim of this program of activity is to assist in the development of the individual girl. No matter whether the woman assistant principal is occupied in conferences with girls or in forma-

tion of plans for social guidance, the objective of her work at all times is the complete development of the girl—physical, intellectual, and moral.

Before satisfactory development in a girl can be hoped for, difficulties which may be hindering her growth into a socially-minded individual must be removed. The home-room teacher, class teacher, and grade adviser are keenly alert to the presence of such difficulties. Each makes a special effort to know the pupils intimately and to learn their problems. A girl who is in need of help is referred to the woman assistant principal. Information is then secured about the girl's social background, her home conditions, her friends, her previous school record, etc., and, whenever possible, the woman assistant principal has an interview with her parents. If the girl's health is involved, she is sent to the school physician, who may recommend daily rest under the supervision of the nurse. Outside social agencies are often of great assistance. Girls with many and varied problems are found, for example, non-social girls, girls who are misfits, over-age girls, and girls who are habitually dishonest. There was once referred to the writer a girl who believed herself to be a spiritualist medium. Problems arise caused by poor health, physical and mental. There are problems caused by poor homes—homes which afford little or no training, homes where standards are low.

The action taken as a result of the study of a case is of the greatest importance and may mean readjustment of classes, of curriculums, and of teachers. The situation may demand later conferences in order to learn of new problems. Joining a club may be recommended for a timid and lonely girl, or she may be given an introduction to an older girl who will act as a big sister. Reference to a mental-hygiene clinic may prove necessary in some cases. Especially is it essential to remember that each girl is an individual and that each must be studied with a view to finding the most effective means of bringing out the best that is in her, of assisting her to leave school with a healthy mind in a healthy body and with a healthy, normal outlook on life.

Educational Writings

REVIEWS AND BOOK NOTES

Junior high schools in California.—The value of certain books may most fairly be expressed in terms of a list of those types of persons who ought not to read them. Such a book is the symposium volume¹ on the organization and administration of the junior high school published under the editorship of William Martin Proctor and Nicholas Ricciardi. This book ought not to be read by persons who have tried without success, or who have not tried at all, to develop for themselves a consistent philosophy of secondary education; nor ought it to be read by those who are seeking in brief compass a ready-made pattern for the ideal junior high school. Though for many other persons the symposium will hold a contribution of much value, to readers of either of these types it is likely to offer little more than confusion and disturbance.

The book consists of a series of chapters by various men and women who have had an active and important share in the development of the junior high school in California. Each chapter deals with a major problem of school administration: types of organization; buildings, grounds, and equipment; administrative staff and clerical force; the faculty; records and reports; marks and promotion plans; making the curriculum; ability grouping and the handling of over-age pupils; guidance and adjustment; directed or supervised study; pupil participation in discipline or control; collateral pupil activities; supervision and improvement of instruction; financial and legal problems; organization of junior high schools in union high school districts; and physical education. Each contributor has drawn for his materials on "data acquired through experience, observation, and study of junior high school work in California rather than data obtained through questionnaires or summarized reading" (p. vii). Thus, as the publisher's announcement of the book states, "The method of approach used throughout is one of fact rather than of theory, and the result has been the assembling of a veritable compendium of useful information."

The result has been, however, something more than "the assembling of a veritable compendium of useful information." The authors of the various chapters have, for the most part, been notably successful in describing not

¹ *The Junior High School: Its Organization and Administration*. Edited by William Martin Proctor and Nicholas Ricciardi. Stanford University, California: Stanford University Press, 1930. Pp. x+324. \$3.00.

merely one way of coping with each of the major problems dealt with but in describing several ways. Though they have omitted critical discussion of most of the diverse practices described, they have been at obvious pains to select for presentation practices which are fairly representative of differing theories. Consequently, the book as a whole offers not a mere series of descriptions of the manner in which one junior high school meets one problem and that in which another junior high school meets another problem but at least a partial view of some of the major complexities of the whole junior high school movement in California. To the extent that junior high schools in California face problems much like those faced by junior high schools elsewhere (and there are reasons for believing that the outstanding problems are everywhere fundamentally the same), the book offers a view of major complexities in the junior high school movement in general.

Such a treatment as this has obvious disadvantages for the person who seeks clear-cut and authoritative solutions to junior high school problems. The contributors present various solutions, nearly all of which have seemed promising to their authors and among which the reader may make a choice. Moreover, the solutions described present a view not of any one junior high school as a unified whole but of many schools in part. This composite view is, to say the least, somewhat overwhelming. The reader needs to keep constantly in mind the probability that no one school ever has included in a single organization all the practices—even all the non-conflicting practices—which the various chapters describe. He needs to keep in mind also the probability that no one school ought to attempt to include all these practices lest education be swamped by administration. It is for these reasons that this book cannot be recommended to the reader who has not clearly defined his own program; but, to persons in charge of junior high schools or to persons directly concerned with the operation of such schools who see their own problems and can judge of promising solutions suggested, such a symposium offers much that may be of value. Unquestionably, it presents suggestions which are eminently worth thinking about, though they need to be thought about before they can be fruitfully applied.

F. T. SPAULDING

HARVARD UNIVERSITY

A manual on schedule-making in junior high schools.—The study of education must be made more objective, we are told frequently by convention speakers. A recent book¹ is a product of this new trend in education. The British occasionally accuse us of employing "department-store" methods in secondary education; but the large size of our schools, as well as the crowded conditions which often prevail in city systems, demands careful organization of the school before a semester's work begins. The author well says:

¹ Harold L. Harrington, *Program Making for Junior High Schools*. New York: Macmillan Co., 1930. Pp. viii+174. \$1.75.

The most important administrative act which the executive in a large junior high school has to perform is the construction of the program for his school. The influence of the program bears upon every pupil and every teacher. Nowhere will careful, painstaking, executive effort be so richly rewarded as here, for ease and simplicity of administration, efficiency of instruction, economy in the use of equipment in buildings and supplies, and morale of pupils and teachers depend in a very real sense upon the care and skill with which the program is made [p. 1].

The book under review is properly a technical handbook for the practical guidance of the worker in the field. Many diagrams fill the pages of the book. For example, there is a diagram representing the most convenient method of adjusting the size of classes after enrolment on the opening day and another showing the best method of scheduling classes so that each teacher will have a free period every day. The four elements of program-making—the program of studies, the pupil body, the physical equipment, and the teaching body—are given careful consideration. One learns the rules for that new game of chess which some one school administrator in every large secondary school must play during the opening week so that pupils, seats, studies, rooms, and teachers are nicely adjusted to avoid waste and friction.

Concise style combined with lucid explanation and direct, almost abrupt, approach to each topic gives this volume a fitting business-like atmosphere. To that harassed person upon whom devolves the adjustment of the school machinery this book should come as water to a thirsty soul in the desert. However, this is no book to hold in one's hand while discussing modern educational theory around a fireplace with friends; rather, its place is on the desk of the school executive or in the hands of the scientific student of education who will appreciate the thorough study and careful research which have gone into this volume.

GEORGE A. RICE

UNIVERSITY OF CALIFORNIA

Teaching mathematics in secondary schools.—A new book¹ presents the results of much experience in observing, directing, and participating in the teaching of secondary mathematics by a wise counselor and an unusually skilful teacher. The wisdom of the author appears not only in the general organization and treatment but also in numerous comments, sometimes dropped into the middle of discussions, that characterize and evaluate practices and theories. The carefully planned details of classroom procedure, the uses and limitations of the lecture method, the differences in reading skill required to read a mathematics textbook and textbooks in most other subjects; the requiring of mastery on the part of the pupil of the material taught (a procedure reflecting the early training of the author), waste in the recitation (for example, work at the black-board and an assignment such as, "Next time review the chapter."), the limita-

¹ Ernst R. Breslich, *The Teaching of Mathematics in Secondary Schools*, Volume I, Technique. Chicago: University of Chicago Press, 1930. Pp. viii+240.

tions of the project method—these are examples of the topics discussed in such a way as to be of great value not only to the inexperienced teacher who is learning the trade but also to the older teacher who wishes to check up and improve his practices.

The following quotation from the Preface shows the groups of readers for whom the book is intended.

1. The prospective teacher, the college student who has decided to become a teacher of mathematics. . . .
2. The experienced teacher who is looking for suggestions to help him improve his instruction. . . .
3. The supervisor who wishes to recommend to his teachers such procedures as have been carefully tried out and refined through years of practice. . . .
4. Normal-school instructors and instructors in summer schools, who have in their classes prospective and experienced teachers. . . .

This volume does not deal with the teaching of specific topics, processes, and materials, or with the methods of selecting and organizing subject matter. These problems will be discussed in detail in the second volume of the series [pp. v-vi].

The book reflects, as is to be expected, the unit organization of subject matter and a plan of supervised study which are prominent in the author's textbooks and other writings. There are extensive bibliographies at the end of the chapters and at the close of the discussions of certain topics. The aim of the book is to improve instruction, and it is admirably constructed to serve this purpose. This book will "wear well" and is a valuable addition to the literature of the teaching of secondary mathematics.

E. H. TAYLOR

EASTERN ILLINOIS STATE TEACHERS COLLEGE
CHARLESTON, ILLINOIS

Investigations relating to extra-curriculum activities.—That extra-curriculum activities have received large recognition and general acceptance is evidenced by the large expansion in the number and range of activities in secondary schools and by the values claimed for them. While certain writers have questioned the legitimacy of these claims, the support given them by secondary-school administrators and university specialists in extra-curriculum activities indicates confidence in the value of the experiences they afford. It is to be expected that a movement as broad in scope and as dynamic in character as this one would receive the attention of investigators. Many studies have been reported. The most extended publication of investigations is a book¹ by Earle Underwood Rugg and others which reports studies made under Rugg's direction at the Colorado State Teachers College.

The book is divided into eight parts. Part I contains a consideration of the general philosophy and principles of administration of extra-curriculum activi-

¹ Earle Underwood Rugg and Others, *Summary of Investigations Relating to Extra-Curricular Activities*. Colorado Teachers College Education Series, No. 9. Greeley, Colorado: Colorado State Teachers College, 1930. Pp. xviii+304.

ties. In Part II, two chapters are devoted to teacher guidance and preparation. The three chapters in Part III contain reports of studies of different forms of pupil participation. Studies relating to social training and social leadership are treated in the two chapters of Part IV. Special types of extra-curriculum activities and the work of special agencies are treated in Parts V and VI. The studies reported in these two sections relate to clubs, assemblies, interscholastic high-school athletic regulations, intelligence of athletes and non-athletes, boy scouts, camp-fire girls, and Hi-Y clubs. Studies of out-of-school activities of pupils and adults are reported in the three chapters of Part VII. Part VIII, which is concerned with the trend in evaluation, contains a chapter on the relation between participation in extra-curriculum activities in high school and success in adult life and a chapter giving a previously published discussion by

TABLE I
FREQUENCY OF USE OF DIFFERENT TYPES AND SOURCES
OF INFORMATION*

Source of Information	Report of Practice or Activity	Judgment of Value of Activity	Judgment of Obstacle or Problem in Activity
Published materials.	3	4	3
Principal.	6	6	2
Pupils.	4	6	2
Dean of girls.	2	1	1
Advisers.	2	2	2
Alumni.	1	1	1
Adults.	1	2	0
Constitutions of organizations.	2	2	0
Total.	21	24	11

*The types of information used in three less subjective studies are not included.

Rugg of the evaluation of extra-curriculum activities. Two of the other chapters, ii and iv, appeared in print before the appearance of this publication.

Contact with Rugg's previously published discussion of the evaluation of extra-curriculum activities (treated in chapter xx of the present publication), in which he stressed the excessive emphasis on organization and administration and the lack and essential need of objective evaluation, caused the reviewer to expect attempts at objective evaluation. This expectation was justified only in part. Of the nineteen investigations reported, all but three represent analyses of previous publications or studies of practices combined in most cases with judgments of administrators, participants, or observers as to the value of the practices discussed. The data presented in Table I describe in detail the type and source of evidence reported.

Three of the studies are less subjective in nature than those represented in the table. A study of the value of social education in the professional preparation of teachers gives a comparison of the teaching success of former students of the

teachers' college who were relatively inactive in student activities with the success of students who carried a heavy program of activities. Those more active in student activities were more successful in teaching. The inference drawn that this larger success is a result of the training received in participation in student activities may be largely in error. Those who were more active were probably more capable in social relationships before their experience in college. The qualities that led them to a larger degree of participation may have enabled them to achieve larger success entirely apart from their experience in student activities. It is equally hazardous to assume that the non-active students would have achieved as much as the active group if they had been stimulated to obtain the experiences provided by extra-curriculum activities. Two other studies, dealing with the mentality and achievement of athletes and non-athletes and with the relation between participation in extra-curriculum activities in high school and success in adult life, cannot be treated because of lack of space.

The summary of investigations of extra-curriculum activities adds much to our knowledge of practice and presents helpful reports of judgments of their value. The big task of evaluating these activities objectively still remains to be done. The value of the book would have been enhanced by summaries of previously published studies. Even a bibliography would have been of considerable value. Principals of high schools will find the summaries of practice rich with suggestions. The book will also render a large service in higher institutions as reference reading in courses on extra-curriculum activities.

GRAYSON N. KEFAUVER

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

A new textbook in citizenship.—To the rapidly increasing number of high-school textbooks in community and vocational civics has recently been added one entitled *Better Citizenship*.¹ This book, first published in 1923 under the title *Citizenship*, aims "to present the basic principles governing our local, state, and national communities" and "to cultivate in the junior citizen healthful ideals and correct attitudes of good citizenship" (p. ix). Throughout the book emphasis is placed on the local community and on the opportunities and responsibilities of pupils as members of the community in which they live.

The content of the book, twenty-three chapters in all, is organized into six major divisions, or "units" as the author has called them. The reviewer sees no reason why the author should use that term, for the divisions are in no sense "units" as that term is now understood and used in pedagogical literature. The six so-called "units," each containing from three to six chapters, are as follows: (1) "Community Welfare," (2) "Community Safety," (3) "Community Services," (4) "Community Improvements," (5) "Learning and Working," and

¹ Ella Cannon Levis, *Better Citizenship: A Textbook in Community Civics*. New York: Harcourt, Brace & Co., 1930. Pp. xxvi+536. \$1.72.

(6) "Our Government." The purpose of the first unit, which has chapters entitled "Protecting the Health of the Community," "Protecting the Food Supply of the Community," "Providing Recreation," and "Social Care of Dependents," is to show the pupil how the community safeguards the welfare of its members. Why this division should be limited to health, food, recreation, and the care of dependents is difficult to understand. Topics included in subsequent divisions logically belong under the caption "Community Welfare." The second unit contains chapters on "Protection against Fire," "Police Protection," "Correction," and "Community Regulation of Buildings." The purpose of this section is to inform the pupil how the community protects its members by a "well-equipped fire-fighting force and an efficient and respected police force, wise building laws, and modern ways of caring for and training those who must be kept out of community life because they have not obeyed community laws" (p. 84). The third unit includes chapters entitled "The Community Water Supply," "Lighting, Heating, and Power," and "Disposal of Community Wastes." This division is essentially devoted to a discussion of public utilities but omits two important services, transportation and communication, which have been included in the following division. The fourth unit presents a discussion of community improvements and includes chapters on "Planning the Community," "Transportation," and "Communication." The organization of the subject matter might have been improved by placing the chapters on transportation and communication in the unit entitled "Community Services." The fifth unit, which is devoted to vocational civics, does not treat the subject thoroughly. Apparently the author's aim is not vocational guidance; rather, the purpose of the unit is to show the part which the community plays in providing educational opportunities and in providing protection to the worker in industry and on the farm. There are chapters on "Getting an Education," "Going to Work," and "Special Problems of the Farmer." The sixth and last unit, dealing with the political aspects of the local, state, and national governments, contains chapters entitled "Paying the Community's Bills," "Making the Laws," "Carrying Out the Laws," "Interpreting and Enforcing the Laws," "Our Relations with Foreigners," and "Our Government Is 'of the People, by the People, and for the People.'" The organization of the major divisions of the book is slightly weak, but the individual chapters are well organized.

To achieve the aims and objectives of the book, the author employs eight devices which motivate pupil activities. First, a one-page introduction to each of the six units gives the pupil a preview of the content to be covered. Second, each chapter is introduced by an "Introductory Lesson Plan," consisting in a series of questions and exercises, which is intended to train the pupil "to use his powers of observation in his own neighborhood before the study of a specific subject" (p. ix). Third, a device common to most textbooks consists in a set of questions at the end of each chapter which test comprehension of the principles and facts discussed in the chapter. Fourth, provision for notebook material is made at the end of each chapter. Poster-making is the fifth device

suggested. Its purpose is to stimulate pupils to a pictorial expression of their own ideas of good citizenship. Not only is the pupil given directions on how to make posters, but the textbook itself contains twenty-three excellent posters, one at the end of each chapter. The sixth device is the making of civic slogans, which is intended to foster healthy social attitudes by training pupils to summarize a civic principle in a short, vivid statement. The seventh device is a section entitled "How Citizens Can Co-operate," which is given at the end of each chapter. These definite, positive suggestions for applying sound civic principles in daily living make civics-teaching concrete. The eighth device is the listing of supplementary material which suggests sources for individual reports and voluntary reading in fiction and in books relating to civics. The study helps and suggested pupil activities throughout the book are stimulating to the pupil and helpful to the teacher.

The format of the book is excellent. There are 147 interesting and instructive pictures as well as several zinc etchings, charts, and figures. The book is durably and attractively bound. It is a contribution which merits careful examination by workers in the field of social studies.

HAROLD A. ANDERSON

Selected readings for education in citizenship.—It has become a truism in recent years that a wide range of corollary and supplementary reading material is essential to good teaching in the social studies. Many volumes of "selected readings" in history are being used in secondary schools; recently a volume for the use of classes in social civics¹ has appeared.

The book contains 217 selections chosen on the basis of "the interests of boys and girls as well as their needs" (p. iii). The selections are arranged in chapters corresponding to those of the textbook previously prepared by the compiler, but they are useful with any standard course in the "new civics." The first seven chapters, including 98 readings, deal with the life of various groups, such as the family, the school, the church, the community, the nation, and the world. Chapters viii through xiii deal with community functions and problems, namely, safeguarding health, protecting the community against fire, maintaining order, providing adequate recreation, community planning, and aiding the handicapped. Chapters xiv through xx present selections focused on the various aspects of governmental activity.

Typical of the selections, which include "imaginative, informational, and interpretative" extracts are: Captain Slocum's "Sailing Alone through the Strait of Magellan"; Eldridge and Clark's "The History of an American Family"; Carl Sandburg's "Lincoln's Books"; "What Jews, Catholics, and Protestants Have in Common," by M. Willard Lampe; statistics on the membership of religious bodies in the United States, which are taken from a report of the United States Department of Commerce; J. Paul Goode's "How New York

¹ Howard C. Hill, *Readings in Community Life*. Boston: Ginn & Co., 1930. Pp. xvi+640. \$1.80.

Became Our Largest City"; James J. Davis' "Guarding America's Open Door"; Leonard P. Ayres's, "The Cost of the World War"; "A Small Boy's Composition on Breathing"; an account of a fire taken from the *Chicago Tribune*; Andrew W. Mellon's "Washington, the Capital City"; Irvin S. Cobb's "Good Sportsmanship"; W. H. Taft's "Defects in Our Criminal-Court Procedure"; and Theodore Roosevelt's "Qualities of Good Citizenship."

A number of features of the volume deserve special mention. As has been indicated, the range of the selections is very wide, but they are all focused on desirable objectives in civic education. The author not only uses writings of the best literary craftsmen in poetry and prose but also uses newspaper and magazine literature and adapts government reports and state papers for school use. A novel and highly successful innovation is the use of poetry and themes written by junior high school pupils in the course in community life at the University High School, University of Chicago. Each chapter of readings is prefaced by a page of concise quotations which serve admirably to give the central theme of the chapter. In format the book is thoroughly attractive and usable; the publishers have avoided the use of the small print and overcrowded page characteristic of many volumes of readings.

Readings in Community Life, then, is particularly useful as a companion volume to the textbook prepared previously by the compiler, but it is also thoroughly useful in any junior high school class pursuing the recognized objectives of education for citizenship. The book is not merely an adjunct to a single textbook; it is a compilation of reading matter focused on civic training, and it can stand firmly on its own merits. It is an excellent volume for duplication in the junior high school library.

HARVARD UNIVERSITY

HOWARD E. WILSON

A comprehensive first book in French.—A recent textbook¹ is the first of a series to be used for a complete modern-language course in high school. The book includes all the reading, grammar, and composition necessary for the first year. As indicated by the authors on page v, it at once exhibits three outstanding advantages: (1) It affords "a very practical saving for the student in time, cost, and convenience." (2) It offers "an integration of materials" which dovetail into a single unit. (3) It presents the advantage of gradation; that is, the material becomes increasingly difficult without placing before the pupil obstacles for which he is unprepared.

In the Preface the authors present part of the objectives of the first two years from *The Teaching of Modern Foreign Languages in the United States* by Algernon Coleman. The authors then evaluate their book in terms of these objectives of progressive development, which are, briefly: (1) the ability to read, (2) a knowledge of the grammar, (3) the ability to use the language orally, (4) the

¹ Ina Bartells Smith and Dorothy Fielding Roberts, *French Book One*. Chicago: Scott, Foresman & Co., 1930. Pp. xxxiv+478. \$1.92.

development of a cultural interest, and (5) increased knowledge of English grammar and derivation. The authors do not claim that their book will completely fulfil the demands of the Coleman report, but they express their indebtedness to the Modern Foreign Language Study and to the conclusions of its report.

Although somewhat long, the book is well printed on attractive two-column pages. As has been previously stated, it not only concerns itself with the usual grammatical considerations but also includes an ample quantity of well-chosen reading material for the first year of study. The reading material is of the type which naturally interests the pupil and arouses his curiosity. It is varied and includes excerpts from such classics as *La chanson de Roland*, *Le bourgeois gentilhomme*, *Des fables de La Fontaine*, *Les trois mousquetaires*, etc. In addition to the reading material in French there are twenty essays written in English providing an additional cultural background. The great value of the illustrations can hardly be overemphasized; they are profuse, well selected, and of superior quality.

The book contains an "Introduction to Pronunciation," 150 lessons, a "Literary Appendix," an "English Grammar Appendix" giving a brief summary of those points of English grammar which will aid the pupil in mastering French grammar, a list of French words taking *à* and *de*, a discussion of French verbs, vocabularies, and an index. The lessons may be placed in three categories: grammar, reading, and review. Each grammar lesson begins with a story, which is followed by a discussion in English of the grammatical points, a French-English vocabulary, a questionnaire on the story, and a set of exercises. The reading lessons consist of selections in French followed by a vocabulary and a list of English equivalents. The review lessons cover the material of the preceding five lessons and other important points previously studied. They consist of questions in English concerning grammar, conjugations, completion exercises, etc.

The method of teaching pronunciation is left to the teacher, who may or may not use the "Phonetic Introduction." Words in the individual lesson vocabularies and in the general vocabulary are given in phonetic script, and the review lessons contain phonetic reviews. It would seem, however, that this most important phase of oral work has not been made a sufficiently integral part of the book and that little effort has been made to explain certain grammatical phenomena by means of principles of phonetics.

The vocabulary is, on the whole, well directed. A moderate number of new words are introduced in each lesson, the vocabulary is logical and adapted to the environment, and the vocabulary elements previously studied are systematically used and re-worked. Occasionally, however, words seem to be introduced prematurely. For example, the verb *tricoter* used in the eighth lesson, the word *sauf* in the eleventh lesson, and the expression *un bout de ficelle* in the fourteenth lesson might be considered somewhat difficult and nonessential for the pupil at the time they are introduced.

The grammatical explanation, as such, is entirely adequate, although the method of presentation makes the grammar seem more an end in itself than a means to an end. It is a formalized type of grammatical presentation, and both the discussions and the questions in the review lessons are given in English. The exercises of the book seem to be carefully graded and cover all the material studied. They afford opportunity for oral, as well as for written, drill.

French Book One is an interesting and a valuable contribution to the field. It will bring the pupil to a better understanding of France, its people, its history, and its customs; it should develop in him a good foundation upon which to build further study. The reviewer looked in vain for a statement indicating that the book had undergone the test of classroom use. It is an interesting experiment, however, and the results of its use in the classroom should be enlightening.

RUTH V. NORMAN

A secondary-school textbook on child care and nursing.—Another book¹ has been added to the Malden Health Series as the result of the authors' experience in teaching home nursing, child care, and first aid. The book assumes that the pupils who will use it will have gained a good foundation for the course from training in health received in the lower grades. The primary purpose of the book is to furnish a textbook for the older girls in the junior high school and the younger girls in the senior high school. It is written to appeal to girls of this period; the authors, avoiding technical language, have used simple wording and an interesting style.

The arrangement conforms to the interests of young girls. An introductory chapter on "What Nursing Means to the Home" attempts to establish the right attitude toward the subject and defines its scope and limitations. The succeeding four chapters make their appeal by describing nursing activities. Chapters dealing with such subjects as "Medicines," "Infections and Antisepsis," and "The Control of Communicable Disease" are withheld until the girls have a background for understanding their significance. The subject matter is too extensive to be practical for the average young girl. Perhaps the large quantity of subject matter is introduced because the secondary purpose of the book is to serve as a reference book for the home. Since the girls are expected to learn by direct teaching as well as by reading, suggestions for demonstration and practice are given at the end of each chapter. The diagrams are exceptionally good; the pictures, for the most part, are attractive and have teaching value although it is unfortunate that the first pictures do not make better use of the principles of design.

The greater part of the book deals with nursing, and the section on child care is almost entirely taken up with the subject of the physical care of infants and of small children. The selection of material is undoubtedly the result of the

¹ C. E. Turner, Nell Josephine Morgan, and Georgie B. Collins, *Home Nursing and Child Care*. Boston: D. C. Heath & Co., 1930. Pp. vi+282. \$1.20.

interest and training of the authors. There is need for emphasis on the mental care and training of babies and of preschool children, and it is therefore disappointing that a new book dealing with child care should fail to develop this phase of the subject.

AILSIE M. STEVENSON

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

- ADAMS, ROY EDGAR. *A Study of the Comparative Value of Two Methods of Improving Problem Solving Ability in Arithmetic*. Philadelphia: University of Pennsylvania, 1930. Pp. 68.
- CABOT, STEPHEN P. *Secondary Education in Germany, France, England and Denmark*. Harvard Bulletins in Education, Number 15. Cambridge, Massachusetts: Harvard University Press, 1930. Pp. xii+110. \$1.00.
- CHÂTEAUNEUF, AMY OLIVE. *Changes in the Content of Elementary Algebra since the Beginning of the High School Movement as Revealed by the Textbooks of the Period*. Philadelphia: University of Pennsylvania, 1930. Pp. x+192.
- ERICSON, EMANUEL E. *Teaching Problems in Industrial Arts*. Peoria, Illinois: Manual Arts Press, 1930. Pp. 434. \$3.00.
- Fifth Yearbook of the Chicago Principals' Club: Health Education*. Edited by Christine Bednar. Chicago: Chicago Principals' Club, 1930. Pp. 252. \$1.50.
- FORSYTH, NATHANIEL F. *Week-Day Church Schools: Their Organization and Administration*. New York: Methodist Book Concern, 1930. Pp. 146. \$1.25.
- Higher Education in America*. Edited by Raymond A. Kent. Boston: Ginn & Co., 1930. Pp. x+690. \$4.00.
- HOLLEY, CHARLES ELMER. *An Introduction to the Psychology of the Classroom*. Boston: D. C. Heath & Co., 1930. Pp. xiv+258. \$2.00.
- An Introduction to Guidance*, Guidance Manual Number 1. Edited by D. H. Eikenberry. Columbus, Ohio: State Department of Education, 1930. Pp. 350.
- KNAPP, THAD JOHNSON. *Educational Insurance: Stopping the Failures or Making Education Certain by the Fixing of Desirable Habits*. Boston: Stratford Co., 1930. Pp. viii+132. \$2.00.
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